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Run on:
                                                                                                     OM nucleic - nucleic search, using sw model
July 15, 2003, 13:01:09; Search time 2756 Seconds (without alignments) 10983.079 Million cell updates/sec
                                                                                                                                                                                      GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.
```

Sequence:	Title: Perfect score:	
1 ATGACCGGCATCGAATGGAATCAAGG	US-09-966-803-1	

GGAATGGGAACTGA 1869

Scoring table: IDENTITY_NUC Gapop 10.0 , Gapext 1.0

16154066 segs, 8097743376 residues

Total number of hits satisfying chosen parameters: 32308132

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : em_estba:*
em_esthum:*
em_estin:*

em_estro:*
em_htc:* em_estov:*
em_estpl:* gb_est1:* em_gss_hum: *
em_gss_inv: *
em_gss_pln: * gb_est3:*
gb_est4:* gb_est2:*
gb_htc:* em_estmu:* em_estfun:* em_estom:* gb_gss:* **jb_est5:***

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

em_gss_other:*
em_gss_pro:*
em_gss_rod:*

em_gss_mus:*

em_gss_mam:*

em_gss_vrt:* em_gss_fun:*

SUMMARIES

	O				O	Result
6	Ç	4	w	N	_	×
48.6	49.2	49.6	52.2	53.2	138.2	Score
2.6	2.6	2.7	2.8	2.8	7.4	Query Match Length DB
478	453	702	664	803	327	ength I
12	9	13	<u>1</u> 3	13	9	8
BG228520	AI323077	BM321397	BM645896	BM321042	AA071581	Watch Length DB ID
BG228520 ux44g06.x	AI323077 mj64c10.y	BM321397 rockefell	вм645896 170006873	BM321042 rockefell	AA071581 0028F Pyr	Description

FEATURES

Location/Qualifiers

45	44	43	42	41	40	39	38	37	36	35 5	34	ω ω	32	31	30 0	29	28	27	26	25	24	23	22	21	20	19	18	17	16	15	14	13	12	11	10	9	8	7
44.4	44.4	44.6	4	44.8	45	in	45.2	t m	ı n	t n	(n	ťπ	ĊЛ	45.6	ïл	46	46	46		œ.	46.4	~	ത	on I	0	•	47	47	47	47	47	47			.7		47.8	48
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12	14	12	10	13	13																ا م	17	12	14	14	10	H	۲,					9	12	13	9	12	1
BF624680	BQ839085	BF342052	AW597116	BM354101	вJ281768	BQ806138	AI734603	BQ222794	AL504599	BG228504	BM710892	BI752028	BE122887	AW802212	BQ606563	AY103772	BQ802857	BQ806284	BE584073	B1756607	AL529961	CNSOlWUI	BF057277	BM929321	B0608368	BE402639	AK011180	AK011861	во889779	AL043279	BE585051	BF721977	AI323432	BF772766	BM548451	5288	BE906698	AY108285
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ALIGNMENTS

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Contion /Our i fiore	SAGILLAGE
Fax: 2163600975; 4102348896 Email: cn288@cleveland.freenet.edu	
Amersham Life Science, 26101 Miles Rd, Cleveland, OH 44128 Tel: 2164649277; 4102348870	
Brummet, Sequencing R&D Amersham Life Science, Inc.	
Contact: Brummet SR; Robb F	COMMENT
Pyrococcus furiosus Unpublished (1996)	JOURNAL
A Survey of the Genome of the Hyperthermophilic Archaeon,	TITLE
Robb, F.T.	
S. T. Szasz. J. Ravel J. Dirkuggiero J. Fuller C. Chase J.W. and	
Borross K.M. Brimmet S.R. Borert A. Davis M.C. Hijer K.M. Domke	ALLENGE
Thermococcaceae; Pyrococcus.	
Archaea; Euryarchaeota; Thermococc1; Thermococcales;	
Pyrococcus furiosus	ORGANISM
Pyrococcus furiosus.	SOURCE
EST.	KEYWORDS
AA071581.1 GI:1578969	VERSION
AA071581	ACCESSION
, mRNA sequence.	
furiosus cDNA clone 0028 similar to Acylamine Acid releasing enyzme	
0028F Pyrococcus furiosus 1-ZAP II library, F Robb Pyrococcus	DEFINITION
AA071581 327 bp mRNA linear EST 01-OCT-1996	LOCUS
	AA071581/c
	RESULT 1

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ACCESSION
VERSION
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BM321042
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207; Conserv
                                                                                                                                            The analysis of 100 genes supports the grouping of three highly divergent amoebae: Dictyostelium, Entamoeba, and Mastigamoeba Proc. Natl. Acad. Sci. U.S.A. 99 (3), 1414-1419 (2002)
Insert Length: 803 POLYA-Yes.
                                   1230 York Avenue, New York, NY 10021, USA
Email: mmuller@rockvax.rockefeller.edu
                                                                                                                Contact: Muller Miklos
                                                                                                                                                                                                         Philippe, H
                                                                                                                                                                                                                       Bapteste, E., Brinkmann, H., Lee, J.A., Moore, D.V., Sensen, C.W., Gordon, P., Durufle, L., Gaasterland, T., Lopez, P., Muller, M. and
                                                                                                                                                                                                                                                Bapteste, E.,
                                                                                                                                                                                                                                                                                                        Mastigamoeba balamuthi.
                                                                                                                                                                                                                                                                                                                                                             BM321042.1 GI:18055448
                                                                                                                                                                                                                                                                                                                                                                                 large PO, mRNA sequence.
BM321042
                                                                                                                                                                                                                                                                                                                                                                                                            Mastigamoeba balamuthi cDNA similar to acidic ribosomal protein
                                                                                                                                                                                                                                                                                                                                                                                                                                        rockefeller.0.613 Mastigamoeba
                                                                                          Laboratory of Biochemical Parasitology
                                                                                                                                                                                                                                                                                Eukaryota; Pelobiontida; Mastigamoebidae; Mastigamoeba
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CCGAAGGGCATGTACGGACACCGCTTCGTCTACGAGATGCAGCTGATGGCGAGCAAGGGC 1221
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CCCAAGGGAATGTACGGTTATTACTTCAAGTATGAAATGCAATTAATGGCGGCCAAGGGG
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                                                                                                                                                                                                                                                                  (bases 1 to 803)
                                                                         Rockefeller University
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /lab_host="E. col1"
//note="Vector: 1-ZAP II; Site_1: Eco RI; Site_2: Eco RI;
//note="Vector: 1-ZAP II; Site_1: Eco RI; Site_2: Eco RI;
Genomic DNA was purified from P. furiosus cells and
partially digested with Dra I, Eco RV, Hinc II, Pvu II,
size selected, ligated to Eco RI linkers then cloned into
the Eco RI site of 1-ZAP II, plasmid excision vector.
Excision was performed in batch and individual clones
retrieved by plating."
101 t
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/strain="DSM 3638"
/db_xref="taxon:2261"
/clone="0028"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /clone_lib="Pyrococcus furiosus l-ZAP II library, F Robb"
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REFERENCE
AUTHORS
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KEYWORDS
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JOURNAL
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 98
                                                                                                                                                                                                                                                                                                                        Unpublished (2002)
Contact: Holt R.A.
                                                                                                                                                                                                                                                                                                                                                            1 (bases 1 to 664)
Holt.R.A., Lin.J.-J., Murphy, S.D., Evans, C.A.,
,R., Collins, F.H., Venter, J.C. and Hoffman, S.L.
                                                                                                                                                                                                                                                                                                                                                                                                                                 Anopheles gambiae
Eukaryota; Metazoa; Arthropoda; Hexapoda; Insecta; Pterygota;
Neoptera; Endopterygota; Diptera; Nematocera; Culicoidea;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             664 bp mRNA linear EST 26
17000687317518 A.Gam.ad.cDNA1 Anopheles gambiae cDNA.clone
19600449655917 5', mRNA sequence.
                                                                                                                                                                                                                                                   45 w. Gude Dr., Rockville,
Tel: 2404533151
Fax: 2404534580
                                                                                                                                                                                                                    Email: HoltRA@celera.com
Plate: NU01004A9T row: M
                                                                                                                                                                                                                                                                                                      Celera Genomics
                                                                                                                                                                                                                                                                                                                                                     Celera Anopheles gambiae EST project
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Similarity 50.0%;
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                                                                                                                                                                                                       primer: M13 Reverse
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
/note="Vector: pSport1;
adult mosquitoes (mixed
                                                                                                   chromosome)"
/db_xref="taxon:7165"
                               /dev_stage="Adult"
/lab_host="DH10b"
                                                                  /clone="19600449655917"
/clone_lib="A.Gam.ad.cDNA1"
                                                                                                                        /strain="RSP-ST (Reduced
chromosome)"
                                                                                                                                                                                  Location/Qualifiers
                                                                                                                                                   'organism-"Anopheles gambiae"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /clone_lib="Mastigamoeba balamuthi lambda ZAP II Library"
/note="syn: Phreatamoeba balamuthi"
282 c 236 g 127 t 3 others
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /strain="ATCC 30984"
/db_xref="taxon:108607"
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                                                                                                                                                                                                                                                                                      20850,
Site_1: Sall; Site_2:
sex) frozen on liquid
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                             Laboratory of Biochemical Parasitology
The Rockefeller University
                                                                                        divergent amoebae: Dictyostelium, Entamoeba, and Proc. Natl. Acad. Sci. U.S.A. 99 (3), 1414-1419
                                                                                                                      The analysis of 100 genes supports the grouping of three highly
                                                                                                                                                    1 (bases 1 to 702)
Bapteste, E., Brinkmann, H., Lee, J.A., Moore, D.V., Gordon, P., Durufle, L., Gaasterland, T., Lopez, P.,
                                                                                                                                                                                                                                                                                                               rockefeller.0.1227 Mastigamoeba balamuthi lambda ZAP II Library
Mastigamoeba balamuthi cDNA similar to ribosomal protein L10, mRNA
                                                                Contact: Muller Miklos
                                                                                  21819461
                                                                                                                                                                                                  Eukaryota; Pelobiontida; Mastigamoebidae; Mastigamoeba
                                                                                                                                                                                                                         Mastigamoeba balamuthi
                                                                                                                                                                                                                                                            EST
Email: mmuller@rockvax.rockefeller.edu
                                                                                                                                                                                                                                         Mastigamoeba balamuthi.
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206 c 198 g 126 t
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Muller, M. an
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                                       correct orientation)
                                                       This read is a RESEQUENCE of a previously sequenced mouse clone This read has been verified (found to hit its original self in
                                                                                                                 Email: mouseest@watson.wustl.edu
This clone is available royalty free through LLNL; contact the
IMAGE Consortium (info@image.llnl.gov) for further information.
                                                                                                                                                                                                                           Contact: Marra M/Mouse EST Project
WashU-HHMI Mouse EST Project
WashIngton University School of MedicineP
4444 Forest Park Parkway, Box 8501, St. La
                                                                                                                                                                                                                                                                                                                                                                              Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubuque,T., Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M., Schellenberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B., Theising,B., Wylle,T., Lennon,G., Soares,B., Wilson,R. and
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453 bp mRNA linear EST 23-DEC-1998
mj64c10.yl Soares mouse p3NMF19.5 Mus musculus cDNA clone
mj64c10.yl Soares mouse p3NMF19.5 Mus musculus cDNA clone
mMGEE: 480882 5' similar to gb: M63649 Mouse M-twist gene, complete
High quality sequence stop: 452
                      Seg primer: -40RP
                                                                                                                                                                                                                                                                                                                       Unpublished (1996)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mus musculus
Eukaryota; Metazoa;
Mammalia; Eutheria;
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                                                                                                                                                                                                                                                                                                                                        The WashU-HHMI Mouse EST Project
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233 c 218 g 103 t 4 others
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/strain="ATCC 30984"
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                                                                                                                                                                                                                                                                                     BG228520 478 bp mRNA linear EST 08-FEB-200 ux44g06.xl Soares_NMMAX_maxillary_process Mus musculus cDNA clone IMAGE:3513394 3' similar to TR:P97831 P97831 DERMO-1 PROTEIN.;
Email: cgapbs-r@mail.nih.gov
This clone is available royalty-free through LLNL; contact the IMAGE Consortium (info@image.llnl.gov) for further information.
                                                      Unpublished (1997)
Contact: Robert Strausberg,
                                                                                                     NCI-CGAP http://www.ncbi.nlm.nih.gov/ncicgap
National Cancer Institute, Cancer Genome Ana
                                                                                                                                                      Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                       Mus musculus
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                                                                                       Gene Index
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        double-stranded cDNA was size selected, ligated to Eco RI adapters (Pharmacia), digested with Not I and cloned into the Not I and cloned into the Not I and Eco RI sites of a modified pT/T3 vector (Pharmacia). Library went through one round of normalization to a Cot = 5. Library constructed by Bento Soares and M.Fatima Bonaldo. RNA was kindly provided by Dr. Minoru Ko (Wayne State University)."

135 c 149 g 102 t 1 others
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/lab_host="DH10B (ampicillin resistant)"
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Rodentia;
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Pred. No. 0.21;
0; Mismatches 17
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1504 GACATAGGGCTCTGGTACGACGTCGAGGTCATCGGGCCAAATCCGTTAGAGAACGAGAAC 1563
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Maize Mapping Project/DuPont Consensus Overgo Probes Unpublished (2002) 2 (bases 1 to 1341)
                                                                                          1 (bases 1 to 1341)
Hainey, C.F., Dolan, M., Miao, G.H., Vogel, J.M., Whitsitt, M.S.,
Arthur, L.W., Hanafey, M., Morgante, M. and Tingey, S.V.
                                                                                                                                                                                                                                                                                                                                              Zea mays PCO126006 mRNA sequence.
Av108285
                                                                                                                                                                                            Eukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta; Spermatophyta; Magnoliophyta; Liliopsida; Poales; Poaceae; PACC
                                                                                                                                                                                                                                               Zea mays
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/clone="IMAGE:3513394"
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NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
                         Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 870)
                                                                                                  EST
                                                                                                                        BE906698
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601500641F1 NIH_MGC_70
                                                                      Homo sapiens
                                                                                                             BE906698.1
                                                                                                                                         mRNA
                                                                                    human.
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                                                                                                                                                                                                                                  GCTGGAGCGCAT 772
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                                                                                                                                      sequence.
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1 410 c 443 q 250 +
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/clone="PC0126006"
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Gene Collection (MGC)
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Best Local
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1062 CTTCCGCTTCAAGAGCAAAGACCTCGAGATAGACGGCTGGTACCTCAGGCCGGAGGTTAA 1121
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                321 CATGCCCTTGAATTGGCCCTACCTGAAGGTCCTTGGCCAGACCTTCATCACCGTGCCTGT
Li,W.B., Gruber,C., Jessee,J. and Polayes,D. Full-length cDNA libraries and normalization Unpublished (2001)
Contact: Genoscope
                                                                                        Mammalia; Eutheria;
1 (bases 1 to 967)
                                                                                                                                    Eukaryota; Metazoa;
                                                                                                                                                            Homo sapiens
                                                                                                                                                                                                                                                         prime, mRNA
AL528820
                                                                                                                                                                                                                                                                                                     AL528820 LTI_NFL001_NBC4
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Clone distribution: MGC clone distribution information can
found through the I.M.A.G.E. Consortium/LLNL at:
http://image.llnl.gov
plate: LLAM9705 row: a column: 11
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Tissue Procurement: ATCC
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Contact: Robert Strausberg, Ph.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                            GGCTGGCCTGGTGGTGGGCCGTGCTGCAGCTCGCCCGGGTGGCT 667
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/tissue_type="epithelioid carcinoma"
/tas_host="DHIOB (phage=resistant)"
/note="0rgan: pancreas; Vector: pCMV-SPORT6; Site_1: NotI;
Site_2: SalI; Cloned unidirectionally. Primer: Oligo dT.
Average insert size 1.1 kb. Library constructed by Life
Technologies."
Technologies."
335 c 228 g 191 t
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/clone="IMAGE:3902482"
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Matches 121; Conserv
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                                                                                     Contact: Robert Strausberg, Ph.D. Email: cgapbs-r@mail.nih.gov Tissue Procurement: Invitrogen
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BP 191 91006 EVRY cedex - France
                                                                                                                                                                                                   Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo. 1 (bases 1 to 1227)
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                                                                                                                                                                                                                                                                                                                                                          AGENCOURT_6573227 NIH_MGC_124
5', mRNA sequence.
                                                                                                                                                 Unpublished (1999)
                                                                                                                                                                 NIH-MGC http://mgc.nci.nih.gov/.
National Institutes of Health, Mammalian
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cDNA Library Preparation: Life Technologies, Inc. cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL) DNA Sequencing by: Agencourt Bioscience Corporation Clone distribution: MGC clone distribution information can
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Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /note-*Organ: brain; Vector: pCMVSPORT 6; 1st strand cDNA was primed with a NotI-oligo(dT) primer. Pive prime end enriched, double-stranded cDNA was digested with Not I and cloned into the Not I and Eco RV sites of the pcMVSPORT 6 vector. Library was normalized. Library was constructed by Life Technologies. Contact: Feng Ling Life Technologies, a division of Invitrogen 9800 Medical Center Drive Rockville, Maryland 20850, USA Fax: (1) 301 610 8371 Email: filang@lifetech.com URL:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        http://fulllength.invitrogen.com"
326 c 268 g 218 t
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/lab_host="DH10B"
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/clone="CSODD001YF08"
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2; Mismatches
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               JOURNAL
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RESULT 11
BF772766
LOCUS
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AUTHORS
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ORIGIN
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1122 AGAGGAGAAGGCCCCGGTGATAGTCTTCGTCCACGGCGGGCCGAAGGGCATGTACGGACA 1181
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1062 CTTCCGCTTCAAGAGCAAAGACCTCGAGATAGACGGCTGGTACCTCAGGCCGGAGGTTAA 1121
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                       Shotgun sequencing of the human transcriptome with ORF expressed sequence tags % \left( 1\right) =\left\{ 1\right\} =\left\{ 1\right\} 
                                                                                              l (bases 1 to 464)
Dias Neto,E., Garcia Correa,R., Verjovski-Almeida,S., Briones,M.R.,
Nagai,M.A., da Silva,W. Jr., Zago,M.A., Bordin,S., Costa,F.F.,
Goldman,G.H., Carvalho,A.F., Matsukuma,A., Baia,G.S., Simpson,D.H.,
Brunstein,A., deOliveira,P.S., Bucher,P., Jongeneel,C.V., O'Hare
,M.J., Soares,F., Brentani,R.R., Reis,L.F., de Souza,S.J. and
                                                                                                                                                                                                                                                                                                                                                                                                                                                        BF772766
                                                                            Simpson, A.J.
                                                                                                                                                                                                                                                                                                                                                                                   BF772766
BF772766.1
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Plate: LLAM12733 row
                                                                                                                                                                                                                                                       Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
                                                                                                                                                                                                                                                                                                       Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                   BF772766
IL5-IT0027-131200-330-f12 IT0027 Homo sapiens cDNA,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /note="Organ: brain; Vector: pCMV-SPORT6; Site_1: ECORV (destroyed); Site_2: NotI; RNA source male hippocampus, age 27. Library is oligo-dT primed and directionally cloned (EcoRV site is destroyed upon cloning). Average insert size 1.4 kb, insert size range 0.9-4 kb. Library is normalized and enriched for full-length clones and was constructed by C. Gruber (Invitrogen). Research Genetics tracking code 012."
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/clone_lib="NIH_MGC_124"
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/lab_host="DH10B"
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Acad. Sci. U.S.A. 97
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Pred. No. 0.94;
0; Mismatches
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(7), 3491-3496 (2000)
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RESULT 12
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nulmina...
1 (bases 1 to 523)
1 (bases 1 to 523)
Marra,M., Hillier,L., Allen,M., Bowles,M., Dietrich,N., Dubuque,T.,
Geisel,S., Kucaba,T., Lacy,M., Le,M., Martin,J., Morris,M.,
Gehellanberg,K., Steptoe,M., Tan,F., Underwood,K., Moore,B.,
                                                                                                                                                                                                                                                                                    AI323432
523 bp mRNA linear EST 23-DEC-1998 mj64c10.x1 Soares mouse p3NMF19.5 Mus musculus cDNA clone IMAGE:480882 3' similar to gb:M63649 Mouse M-twist gene, complete
                                                                                                               Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
                                                                                                                                                         Mus musculus
                                                                                                                                                                                                                              AI323432.1
                                                                                                                                                                                                                                                                    cds (MOUSE);, mRNA sequence.
                                                                                                                                                                                      house mouse
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     This sequence was derived from the FAPESP/LICR Human Cancer Genome Project. This entry can be seen in the following URL (http://www.ludwig.org.br/scripts/gethtml2.pl?tl=IL5&t2=IL5-IT0027-131200-330-f12&t3=2000-12-13&t4-1)
Seq primer: puc 18 forward
High quality sequence stop: 382.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Email: asimpson@ludwig.org.br
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Fax: +55-11-2707001
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /note="Organ: epid_tumor; Vector: pucl8; Site_1: SmaI; Site_2: SmaI; A mini-library was made by cloning products derived from ORESTES PCR (U.S. Letters Patent application No. 196,716 - Ludwig Institute for Cancer Research) profiles into the pUC 18 vector. Reverse transcription of
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172 c 120 g 114 t
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/db_xref="taxon:9606"
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Sciurognathi; Muridae;
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                                                                                                                                                                                                                                                                                                                                                                                                                                   183 TCGAGCGAAGATGGCAGCCCGGACCCCGGGTAAGCGGCGAAGAAGAAGGGCAGCCCGAGCGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                155;
BF721977 548 bp mRNA mab26d05.xl Soares_NMEBA_branchial_arch
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Email: mouseest@watson.wustl.edu
This clone is available royalty-free through LLNL;
IMAGE Consortium (info@image.llnl.gov) for further:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         This clone was previously sequenced on the data is from the 3' end
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Contact: Marra M/Mouse EST Project WashU-HHMI Mouse EST Project
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High quality sequence stop:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      double-stranded cDNA was size selected, ligated to Eco R. adapters (Pharmacia), digested with Not I and cloned into the Not I and Eco RI sites of a modified pT7T3 vector (Pharmacia). Library went through one round of normalization to a Cot = 5. Library constructed by Bento Soares and M.Fatima Bonaldo. RNA way kindly provided by Dr. Minoru KO (Wayne State University).*

178 c 173 g 68 t 1 others
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                                                                                                                                                                                                                                                                                                                                                                        1564 TTCAGGAAGCTCAGCCCGCTGTTCTACGCTCAGAACGTGAAGGCGCCGATACTCCTAATC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Contact: Robert Strausberg, Ph.D.
Email: cgapbs-r@mail.nih.gov
cDNA Library Preparation: M. Bento Soares, Ph.D., M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 EST
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Unpublished (1997)
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National Cancer Institute, Cancer Genome Anatomy Project (CGAP).
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1 (bases 1 to 548)
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                            GACAAGCTCAGCAAGATCCAGACGCTCAAGCTGGCCGCCAGGTACATAGACTTCCTCTAC
                                                                        GTCCGCGGAAGCCCGAGGCACAGGCCGAAGCGCTACAGGCTCTTCATAGAGTTCTTCGAG 1803
                                                                                                                                                                          AAGGACATGGGCAAGGAAGCCTACATAGCGATATTCAAGCGCGGCGCCCCACGGCCACAGC 1743
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                                                                                                                                                                                                                                                                                                                                                                                                                         GAGGAAGAGCTGGAGAGGCAGCCCAAGCGCTTCGGCCGGAAGCGGCGCTACAGCAAGAAA
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1651 CTCGACCAGAGCCTTATGTTCTACAACGTGCTCAAGGACATGGGCAAGGAAGCCTACATA 1710
                                                                                                                                                                                                                        1534 ATCGGGCCAAATCCGTTAGAGAACGAGAACTTCAGGAAGCTCAGCCCGCTGTTCTACGCT
                                                                                                                                                                                                                                                                                                                       1474 AGCTACTGGCTCACCAGCTACGCCTTCTCGGACATAGGGCTCTGGTACGACGTCGAGGTC
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                                                                                                                                                                                                                                                                         423 CAGGTTCTCCAGAGCGACGAGATGGACAATAAGAT 457
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Agriculture and Agri-Food Canada
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Qutob,D., Hraber,P.T., Sobral,B.W.S. and Gijzen, Comparative analysis of expressed sequences in Plant Physiol. 123 (1), 243-254 (2000)
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BE585051.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Email: gijzenm@em.agr.ca.
Location/Qualifiers
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                                                                          ACGGGCGTCACGCGCGTGCAGATCGACGACTTCCTGCCGCAGATCAACCAGATCGGAGAG
                                                                                                                         CAGAACGTGAAG----GCGCCGATACTCCTAATCCACTCGCTTGAGGACTACCGCTGTCCG
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519 457 1470
                                                                                                                                                                                                                                                                                                                                                                           Conservative
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//lab_host="E. coli strain XIOIR"
//note="Vector: pBK-CMV; Site_1: EcoRI; Site_2: XhoI; This
//note="Vector: pBK-CMV; Site_1: EcoRI; Site_1: EcoRI; Site_1: EcoRI; Site_1: EcoRI; Site_1: Albert Site_1: EcoRI; Site_1: Albert Site_1: EcoRI; Site_1: Albert Site_1: EcoRI; Site_1: Albert Site_1: 
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           coli host strain XLI Blue MRF'. Inserts were then subcloned by mass excision using EXAssist helper phage for conversion into phagemid vector pBK-CMV in E. coli host strain XLOLK. Sequenced using T3 primer: 5' ATT I COUNT TAN AGG GA 3' "
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /dev_stage="zoospores"
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                      1182 CCGCTTCGTCTACGAGATGCAGCTGATGGCGAGCAAGGGCTACTACTGCTGCTTCGTGAA 1241
                                                                                                                      1122 AGAGGAGAAGGCCCCGGTGATAGTCTTCGTCCACGGCGGGCCGAAGGGCATGTACGGACA 1181
                                                                                                                                                                                                   1062 CTTCCGCTTCAAGAGCAAAGACCTCGAGATAGACGGCTGGTACCTCAGGCCGGAGGTTAA 1121
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511 TCTCTTCCGCATGGCACAGCTGAGGAATTTCAAGGCCACCTACTGCTACCTTGTGCC
                                                                                     451
                                                                                                                                                           391 CATGCCCTTGAATTGGCCCTACCTGAAGGTCCTTGGCCAGACCTTCATCACCGTGCCTGT 450
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           No s1 sequence available.
This clone (DKFZp434L0423) is available at the RZPD in Berlin.
Please contact the RZPD: Ressourcenzentrum, Heubnerweg 6, 14059
Berlin-Charlottenburg, GERWANY; Email: clone@rzpd.de.
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  751 bp mRNA linear EST 29-FEB-2000 DKFZp434L0423_rl 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434L0423 5', mRNA sequence.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Am Klopferspitz 18a D-82152 Martinsried, Germany
This is the 5' sequence of the clone insert
Clone from S. Wiemann, Molecular Genome Analysis, German Cancer
Research Center (DKFZ); Email s. wiemann@dkfz- heidelberg.de;
sequenced by LMU (Ludwig Maximilians University,
Munich/Germany) within the cDNA sequencing consortium of the German
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            On Jul 8, 1999 this sequence version replaced gi:5422672
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Genome Project.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Blum, H., Bauersachs, S., Mewes, H.W., Gassenhuber, J. and Wiemann, S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Eukaryota; Metazoa;
Mammalia; Eutheria;
1 (bases 1 to 751)
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                                                                                                                                                                                                                                                                                                                                          /clone="DKFZp43410423"
/clone_lib="434 (synonym: htes3)"
/tissue_type="testis"
/dev_stage="adult"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /organism="Homo sapiens"
/db_xref="taxon:9606"
                                                                                                                                                                                                                                                             2.5%;
48.5%;
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Search completed: July 15, 2003, 16:11:46 Job time: 2761 secs

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Minimum DB
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Listing first 45 summaries
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Copyright (c) 1993 - 2003 Compugen Ltd.
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/Cgn2_6/ptodata/1/pubpna/US10_PUBCOMB.seq:*
/Cgn2_6/ptodata/1/pubpna/US10_PUBCOMB.seq:*
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Sequence 6210, Ap
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Sequence 2673, Ap
Sequence 2733, Ap
Sequence 2886, Ap
Sequence 2886, Ap
Sequence 2, Appli
Sequence 26097, A
Sequence 40, Appli
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Sequence 224, App
Sequence 4866, Ap
Sequence 8012, Ap
Sequence 5055, Ap
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Sequence 2793, Ap
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PRIOR APPLICATION DATA:

APPLICATION UNMBER: US/09/609,570
FILING DATE: 30-Jun-2000
APPLICATION NUMBER: 09/427,372
FILING DATE: CUDKINOWID:
FILING DATE: CUDKINOWID:
ATTORNET/AGENT INFORMATION:
NAME: Charles J. Hearon
REGISTRATION NUMBER: 28,019
REGISTRATION INFORMATION:
TELEPHONE: 201-994-1700
TELEPHONE: 201-994-1700
TELEPHONE: 201-994-1744
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS: Sequence 1, Application US/09966803 Patent No. US20020137185A1 GENERAL INFORMATION: COMPUTER: IBM PS/2
OPERATING SYSTEM: MS-DOS
SOFTWARE: WORD PERFECT 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/966,803
FILING DATE: 27-Sep-2001
CLASSIFICATION: <Unknown> COMPUTER READABLE FORM: MEDIUM TYPE: 3.5 I TITLE OF INVENTION: Amidases NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS: APPLICANT: Murphy et al ADDRESSEE: CARELLA, BYRNE, BAIN, GILFILLAN, CECCHI, STEWART & OLSTEIN STREET: 6 BECKER FARM ROAD CITY: ROSELAND STATE: NEW JERSEY COUNTRY: USA TYPE: NUCLEIC ACID LENGTH: 1869 NUCLEOTIDES 07068 INCH DISKETTE ALIGNMENTS

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MOLECULE TYPE: DNA
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APPLICANT: Berka, Randy M. APPLICANT: Clausen, Ib Groth TITLE OF INVENTION: Methods For US/09974300 For Monitoring

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PRIOR FILING DATE: 2000-10-06
PRIOR APPLICATION NUMBER: 60/279,526
PRIOR FILING DATE: 2001-03-27
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SOFTWARE: FastSEQ for Windows Version
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TYPE: DNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             TCGTGAACCCGCGCGGCGACGACGACGACGTAGAGACTTCGCGCTCCGCGTCCTGGAGA 1294
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CAAACTGGGCTGTCGGCCACACGAAGCGCTTCAAGGCCGCAGTGACACAGAGGTCCATTT 1618
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CCAACTGGGCCTTGACTCAGAGCGACCTCTTCAAGGCAGGAATAAGCGAGAACGGCATAA 1474
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ATGATTTCGTCGATCAAGAAAGGCTCGGCATCACCGGAGGAAGCTACGGGGGCTTTATGA 1558
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AACCGCAGGCCGACAGGGAGCGCGTTGGAATAACGGGCGATAAGCTACGGCGGCTTCATGA 1414
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ACTACGGCGGTGGAGATTTTAAGGATGTAATGGCGGCTGTTGACCACGTGCTTGAACATT 1498
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGACTGGCTTGGAGGACTTTGAGGACATAATGAACGGCATCGAGGAGTTCTTCAAGCTCG 1354
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ATGTTAACCCGCGGGAAGCCACGGCTACGGACAGGATTTTGTCAACCGGGTGAGGGGCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATGCGAATGCTTATTTTCATGAATTTCAAGTGCTGGCCGCAAAGGGAAGCGCCGTCGTAT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ACGGACACCGCTTCGTCTACGAGATGCAGCTGATGGCGAGCAAGGGCTACTACTGCTGCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           AGGTTAAAGAGGAGAAGGCCCCCGGTGATAGTCTTCGTCCACGGCGGGCCGAAGGGCATGT 1174
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 140.8; DB 10;
Pred. No. 3.4e-33;
0; Mismatches 317;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          4.0
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PRIOR APPLICATION NUMBER: 09/680,598
PRIOR FILING DATE: 2000-10-06
PRIOR PPLICATION NUMBER: 60/279,526
PRIOR FILING DATE: 2001-03-27
NUMBER OF SEQ ID NOS: 8481
SOFTWARE: FastSEQ for Windows Version 4.
SEQ ID NO 4866
LENGTH: 477
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; ORGANISM: Bacillus clausii
US-09-974-300-4866
                                                                                                                                                                                                                GENERAL INFORMATION
                                                                                                                                                                                                                                Sequence 8012, Application US/09815242 Patent No. US20020061569A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
Best Local Similarity 49.9
Matches 167; Conservative
TITLE OF INVENTION: Identification TITLE OF INVENTION: Prokaryotes FILE REFERENCE: ELITRA, 011A
                                                        APPLICANT:
                                                                                              APPLICANT:
                                                                                                                                    APPLICANT:
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                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                          APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Berka, Randy M.
APPLICANT: Clausen, Ib Groth
TITLE OF INVENTION: Methods For Monitoring Multiple of TITLE OF INVENTION: Expression
FILE REFERENCE: 10085.500-US
CURRENT APPLICATION NUMBER: US/09/974,300
CURRENT FILING DATE: 2001-10-05
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1486
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1366 GACAGGGAGCGCGTTGGAATAACGGGCCATAAGCTACGGCGGCTTCATGACCAACTGGGCC
                                                                                                                                                                                                                                                                                                                                                                                  1666 ATGTTCTACAACGTGCTCAAGGACATGGGCAAGGA 1700
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                                                                                                                                                                                                                                                                                                                                              CAATTGTTTATTGCGTTGAAAAAGCATGGGAAAGA 364
                                                                                                                                                                                                                                                                                                                                                                                                                                                              GCGCCGATACTCCTAATCCACTCGCTTGAGGACTACCGCTGTCCGCTCGACCAGAGCCTT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CCGTTAGAGAACGAGAACTTCAGGAAGCTCAGCCCGCTGTTCTACGCTCAGAACGTGAAG 1605
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ACCAGCTACGCCTTCTCGGACATAGGGCTCTGGTACGACGTCGAGGTCATCGGGCCAAAT 1545
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GTTGGCCATACGAATCGGTTCAAAGCGGCCGTTACGCAACGCTCGATATCCAATTGGATT
                                                      Carr, Grant J.
Yamamoto, Robert T.
Xu, H. Howard
                                                                                                            Wall, Daniel
Trawick, John D.
                                                                                                                                                                                                                                                                                                                                                                                                                          ACGCCATTGCTTATTCTGCACGGTGAAAAAGATTATCGCTGTCCGATTGAACAAGCAGAG 329
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TTGCATGATATCGAAACACTGTGGGCCCATTCGCCACTCAAATACGTTGAAAACGTGGAA 269
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AGTTTTTATGGCGTAAGCGATATTGGCTACTATTTTTCAGAGTGGCAAATAAAAGCAGAC
                                                                                                                                                Ohlsen, Kari L.
Zyskind, Judith W.
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Pred. No. 2.9e-10;
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                                    of Essential
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Indels
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CURRENT APPLICATION NUMBER: 05/09/815,242
CURRENT FILING DATE: 2001-03-21
PRIOR APPLICATION NUMBER: 60/191,078
PRIOR FILING DATE: 2000-03-21
PRIOR APPLICATION NUMBER: 60/206,848
PRIOR FILING DATE: 2000-05-23
PRIOR APPLICATION NUMBER: 60/207,727

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US-10-156-761-5055
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LENGTH: 783
TYPE: DNA
                                                                                                                                                                                                                                                                                              Sequence 5055, Application US/10156761 Publication No. US20030119018A1 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Query Match
                                                                                                                                                                                                    APPLICANT:
                                                                                APPLICANT: SHIBA, TADAYOSHI
APPLICANT: SAKAKI, YOSHIYUKI
APPLICANT: HATTORI, MASAHIRA
TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
FILE REFERENCE: 249-262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PRIOR APPLICATION NUMBER: 60/269,308
PRIOR FILING DATE: 2001-02-16
NUMBER OF SEQ ID NOS: 14110
SOFTWARE: FastSEQ for Windows Version
                                                                                                                                                                                                                                                  APPLICANT: OMURA, SATOSHI APPLICANT: IKEDA, HARUO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION NUMBER: 60/253,625
PRIOR FILING DATE: 2000-11-27
PRIOR APPLICATION NUMBER: 60/257,931
PRIOR FILING DATE: 2000-12-22
                                      CURRENT APPLICATION NUMBER: US/10/156,761
CURRENT FILING DATE: 2002-05-29
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PRIOR FILING DATE: 2000-10-23
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NAME/KEY: CDS
LOCATION: (1)...(783)
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nes 205; Conserv
APPLICATION NUMBER: JP 2001-204089
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      1302 CTTGGAGGACTTTGAGGACATAATGAACGGCATCG 1336
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            1062 CTTCCGCTTCAAGAGCAAAGACCTCGAGATAGACGGCTGGTACCTCAGGCCGGAGGTTAA 1121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1002 ACAGGTCACCGAATACAACGGGCCGATATTCAGGAAGCTCAAGACCTTCGAGCCGAGGCA 1061
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    72 CCTCACCGTCGCCGCCCCCGGTGCCGCACGCGGAGATCCTCAACGTGGTCAAGCCGCT 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              12 GCTTGCTGCTTTCTCCGCTGTCGCCGCCGCCTCACCGCCGCCCCAGGCCGCCGAGTC 71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    GCTCCTCATCATGACCGCCACGAGGATAGGCGAGCTCTACCTCTACGACGACGGCGAGCTGAA 1001
                                                                                                                                                                                                                                                                                                                                                                                                                                                              GGTGATCAAGCTCAAGGACAACAAGAGCATCACCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GGTGATTCCCAACGACGCCACCAACGGCGGCCGCCCTGCTCCTGCTGGACAAGGCCGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               CCCGCGCGCACCGCTATACCGAAGACTTCGCGCTCCGCGTCCTGGAGAGGACTGG 1301
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GCTGGGCGCCTACTCGAGCAAGTACAAGAAGCTCGACGAACTGCCTTCCGGCGCTACCGT 371
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           CCGCTTCGTCTACGAGATGCAGCTGATGGCGAGCAAGGGCTACTACTGCTGCTTCGTGAA 1241
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TGAGTTCAACAAGGCCAAGGGCACCGACCTGGTCGCCGTGACCGGCGTACACATCGAGCC 311
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CGTGCAGGTCTCGGAAAAGCGCCTGGACGCCAACTTCTTCCAGCACCAGCCGTACCTCGA
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                                                                                                                                                                                                    ISHIKAWA, JUN
HORIKAWA, HIROSHI
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Pred. No. 1.1e-06;
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us-10-156-761-5055
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Best Local S
Matches 186
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LENGTH: 2817
TYPE: DNA
ORGANISM: Streptomyces avermitilis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRIOR FILING DATE: 2001-05-30
PRIOR APPLICATION NUMBER: JP 2001-272697
PRIOR FILING DATE: 2001-08-02
NUMBER OF SEQ ID NOS: 15109
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LOCATION: (1)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1181 ACCGCTTCGTCTACGAGATGCAGCTGATGGCGAGCAAGGGCTACTACTGCTGCTTCGTGA 1240
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               1121 AAGAGGAGAAGGCCCCGGTGATAGTCTTCGTCCACGGCGGGCCGAAGGGCATGTACGGAC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1241 ACCCGCGCGCAGCGACGGCTATAGCGAAGACTTCGCGCTCCGCGTCCTGGAGAGGACTG 1300
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            176 ACGACCTGCTGCCCGAGGCGTTCGCCACCGTCCGCGAGGCCGCCAAGCGCGTTCTGGGCC
536 AGTTCGGCTTCGACTACCTGCGCGACAACATGGCGTGGTCCCAGGACGA 584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  186;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Similarity
                                                     GGCTCACCAGCTACGCCTTCTCGGACATAGGGCTCTGGTACGACGTCGA 1529
                                                                                                                                                                           GGGCCTTGACTCAGAGCGACCTCTTCAAGGCAGGAATAAGCGAGAACGGCATAAGCTACT 1480
                                                                                                                                                                                                                                                                                                                                                                                                                     GCTTGGAGGACTTTGAGGACATAATGAACGGCATCGAGGAGTTCTTCAAGCTCGAACCGC 1360
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AGGCCGACAGGGAGCGCGTTGGAATAACGGGCATAAGCTACGGCGGCTTCATGACCAACT
                                                                                                                  TGACGCCGGCCCAGCGCGAGCAGTACGGGTGCGACATCACGTACGGCACGAACAACG
                                                                                                                                                                                                                                                                                                                                                               TCTCCGGAGACGGCGTCCATCACCGGTCAACGACTACCTGGCCGAGCGCGACTCCG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AGATGAAGACCGGTGAGGGCAAGACGCTCGTCGGCACCCTGCCCGCGTATCTGAACGCGC
                                                                                                                                                                                                                                       AGATGATGGGCCGCGTCCACAAGTTCCTGGGTCTGAGCGTCGGCTGCATCCTCGCCAACA
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Pred. No. 1.3e-05;
0; Mismatches 223
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1180 235

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us-10-156-761-1 SEQ ID NO 1 LENGTH: 90 GENERAL INFORMATION: CURRENT APPLICATION NUMBER: US/10/156,761 CURRENT FILING DATE: 2002-05-29 PRIOR APPLICATION NUMBER: JP 2001-204089 PRIOR FILING DATE: 2001-05-30 PRIOR APPLICATION NUMBER: JF 2001-272697 PRIOR FILING DATE: 2001-08-02 APPLICANT: SHIBA, TADAYOSHI
APPLICANT: SAKAKI, YOSHIYUKI
APPLICANT: HATTORI, MASAHIRA
TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
FILE REFERENCE: 249-262 NUMBER OF SEQ ID NOS: 15109 APPLICANT: APPLICANT: APPLICANT: OMURA, APPLICANT: IKED! ORGANISM: Streptomyces avermitilis FEATURE: NAME/KEY: misc_feature 9025608 Application US/10156761 No. US20030119018A1 ISHIKAWA, JUN HORIKAWA, HIROSHI IKEDA, HARUO SATOSHI 2002-05-29

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                                                                                                                                                           ; NAME/KEY: CDS
; LOCATION: (1)..(1446)
US-10-156-761-2793
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                                                                     Query Match

Best Local Similarity

Matches 179; Conserv
                                                                                                                                                                                                                                                                                                                CURRENT APPLICATION NUMBER: US/10/156,761
CURRENT FILING DATE: 2002-05-29
PRIOR APPLICATION NUMBER: JP 2001-204089
PRIOR FILING DATE: 2001-05-30
PRIOR APPLICATION NUMBER: JP 2001-272697
PRIOR FILING DATE: 2001-08-02
NUMBER OF SEQ ID NOS: 15109
SEQ ID NO 2793
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APPLICANT: IKEDA, HARUO
APPLICANT: ISHIKAWA, JUN
APPLICANT: HORIKAWA, HIROS
APPLICANT: SHIBA, TADAYOSI
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Best Local Similarity
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APPLICANT: SARAKI, YOSHIYUKI
APPLICANT: HATTORI, MASAHIRA
TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
FILE REFERENCE: 249-262
                                                                                                                                                                                                                                          ORGANISM: Streptomyces
                                                                                                                                                                                                                                   FEATURE:
                                                                                                                                                                                                                                                                             TYPE: DNA
                                                                                                                                                                                                                                                                                                  LENGTH: 1446
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897 CGACCACTGGATTTACGGGCTTGACGTCAGCGATGGCAAAGCATTGCTCCTCATCATGAC 956
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      GGCTCACCAGCTACGCCTTCTCGGACATAGGGCTCTGGTACGACGTCGA 1529
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            GGGCCTTGACTCAGAGCGACCTCTTCAAGGCAGGAATAAGCGAGAACGGCATAAGCTACT 1480
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HORIKAWA, HIROSHI
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Pred. No. 0.00034;
0; Mismatches 223;
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Pred. No. 4.9e-05;
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                                                                                                               Length 1446
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                                                                                                                                                                                                                                                                      Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CURRENT APPLICATION NUMBER: US/10/156,761
CURRENT FILING DATE: 2002-05-29
PRIOR APPLICATION NUMBER: JP 2001-204089
PRIOR FILING DATE: 2001-05-30
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APPLICANT: HATTORI, MASAHIRA
TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
FILE REFERENCE: 249-262
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: OMURA, SATOSHI
APPLICANT: IKEDA, HARUO
                                                                                                                                                                                                                                                                                                                                                                                                                                                              TYPE: DNA ORGANISM: Streptomyces avermitilis
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  3448019
                                                                                                                                                                            3448139 CGACGGCGGCCCGGACGGGCCCCGCCACCGACCGGCGGCCGCTGTCATGACCCGGCT 3448080
                                                                                                                                                                                                                                                                  2.7%; Match 2.7%; Local Similarity 45.4%; ses 179; Conservative
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CCCGGGCATGACCGACGAGCAGCTCGGCCGCGAGCTGTTGATGAACGCCGTCTACCTCAA 3447960
                                         CAACGGGCCGATATTCAGGAAGCTCAAGACCTTCGAGCCGAGGCACTTCCGCTTCAAGAG
                                                                                      CGCCGCCCACCGCAGACAGCGCCCCCGGCGACGACCTCACCTCGTACCTGCTCCTCGCCGA
                                                                                                                               CGCCACGAGGATAGGCGAGCTCTACCTCTACGACGGCGAGCTGAAACAGGTCACCGAATA
                                                                                                                                                                                                                        CGACCACTGGATTTACGGGCTTGACGTCAGCGATGGCAAAGCATTGCTCCTCATCATGAC
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HORIKAWA, HIROSHI
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Pred. No. 0.0016;
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; LOCATION: (1)..(1503)
US-10-156-761-6210
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SEQ ID NO 6210
LENGTH: 1503
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TYPE: DNA .
ORGANISM: Streptomyces avermitilis
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                                                                                                                                                                                                       185
                                                                                                                                                                                                                                                                                                           878 CCGAGCGTGTTGTTACCGGCGACCACTGGATTTACGGGCTTGACGTCAGCGATGGCAAAG 937
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TTAAAGAGGAGAAGGCCCCGGTGATAGTCTTCGTCCACGGCGGGCCGAAGGGCATGTACG 1177
                                                                                                                                                                                                                                           CATTGCTCCTCATCATGACCGCCACGAGGATAGGCGAGCTCTACCTCTACGACGGCGAGC 997
                                                                          GGCACTTCCGCTTCAAGAGCAAAGACCTCGAGATAGACGGCTGGTACCTCAGGCCGGAGG 1117
                                                                                                                                                                                                                                                                                   TCGACGGCGTCATCGTGAAGGTCGACCGGGACGAGGTCCTGCTCGACATCGGTTACAAGA 184
                                    GCCTGATCCTCTCGAAGAAGCGCGCCCAGTACGAGCGCGCCTGGGGCACCATCGAGAAGA 364
                                                                                                                                                                                                                                                                                                                                                                AGGAAGCCTTCCTCGCCGCGATCGACGAGACGATCAAGTACTTCAACGACGGCGACATCG
                                                                                                                    TGAAACAGGTCACCGAATACAACGGCCGATATTCAGGAAGCTCAAGACCTTCGAGCCGA 1057
                                                                                                                                                                                                   CCGAAGGTGTCATCCCGAGCCGCGAGCTCTCGATCAAGCACGACGTCGACCCGAACGAGG 244
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CTTCTGGATCAGGGCGGGCGACGTCGTCTCCCCG 3447746
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HORIKAWA, HIROSHI
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5. US20030119018A1
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43.7%;
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Pred. No. 0.00018;
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RESULT 10
US-09-864-761-18040
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LENGTH: 1785
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TITLE OF INVENTION: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL F
TITLE OF INVENTION: GENE EXPRESSION ANALYSIS BY MICROARRAY
FILE REFERENCE: Acomica-X-1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CURRENT APPLICATION NUMBER: US/09/864,761
TYPE: DNA
ORGANISM: Homo sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: PCT/US01/00667 FILING DATE: 2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              APPLICATION NUMBER: US 09/632,366 FILING DATE: 2000-08-03
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                                                                                                                                                                                                                                                                                                                                                                                                             FILING DATE: 2001-01-30
APPLICATION NUMBER: PCT/US01/00662
FILING DATE: 2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: GB 24263.6 FILING DATE: 2000-10-04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICATION NUMBER: US 60/207,456
                                                                                                                                                                                                     FILING DATE: 2000-06-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: PCT/US01/00668
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: PCT/US01/00669 FILING DATE: 2001-01-30
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: PCT/US01/0066
                                                                                                                                                                                                                             APPLICATION NUMBER: US 09/608,408
                                                                                                                                                                                                                                                        APPLICATION NUMBER: US 60/234,687 FILING DATE: 2000-09-21
                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: PCT/US01/0067(
                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: PCT/US01/0066
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICATION NUMBER: PCT/US01/00663
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                                                                                                  Sequence Listing Engine yers.
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US-09-822-849A-6
                                                                                                                                                                      ; SOFTWARE: PatentIn Ver.;
SEQ ID NO 6
; LENGTH: 2428
; TYPE: DNA
; ORGANISM: Homo saplens
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US-09-822-849A-6
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          Query Match 2.5%;
Best Local Similarity 49.4%;
Matches 122; Conservative
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APPLICANT:
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Best Local Similarity 49.4%;
Matches 122; Conservative
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                                                                                                                                                                                                                                                                                                                                             CURRENT APPLICATION NUMBER: US/09/822,849A CURRENT FILING DATE: 2001-09-04 PRIOR APPLICATION NUMBER: 60/195,582 PRIOR FILING DATE: 2000-04-06 NUMBER: OF SEQ ID NOS: 598
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: Genetics Institute, Inc.
TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING NOVEL SECRETED PROTEINS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                FILE REFERENCE: GIN 6403
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Gulukota, Kamalakar
Graham, James R.
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Agostino, Michael J.
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ON: EXPRESSED IN LUNG, SIGNAL = 4.2

ON: EXPRESSED IN ADULT LIVER, SIGNAL = 2.8

ON: EXPRESSED IN BRAIN, SIGNAL = 2.8

ON: EXPRESSED IN BRAIN, SIGNAL = 6.4

ON: EXPRESSED IN BT474, SIGNAL = 2.5

ON: EXPRESSED IN HELA, SIGNAL = 2.5

ON: EXPRESSED IN FETAL LIVER, SIGNAL = 2.4

ON: EXPRESSED IN HBL100, SIGNAL = 2.4

ON: EXPRESSED IN BN100, SIGNAL = 2.4

ON: EXPRESSED IN B
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      Score 47; DB 10; 1
Pred. No. 0.00052;
0; Mismatches 125;
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Pred. No. 0.00046;
0; Mismatches 125
                                                                 Length 2428;
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RESULT 13
US-10-156-761-2673
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PRIOR FILING DATE: 2001-02-02
NUMBER OF SEQ ID NOS: 17
SOFTWARE: PatentIn version 3.1
SEQ ID NO 1
LENGTH: 2673
TYPE: DNA
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Best Local Similarity
Matches 122; Conserv
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TITLE OF INVENTION: Methods of Assessing Wolframin Protein Activity
FILE REFERENCE: 00450.US1
CURRENT APPLICATION NUMBER: US/10/060,425
CURRENT FILING DATE: 2002-01-30
CURRENT FILING DATE: 2002-01-30
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Pred. No. 0.00054;
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Sequence 2673, Application US/10156761
Publication No. US20030119018A1
GENERAL INFORMATION:
APPLICANT: OMURA, SATOSHI
APPLICANT: IKEDA, HARUO

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; LOCATION: (1)..(1431)
US-10-156-761-2673
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US-10-156-761-2886
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Best Local Similarity
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SEQ ID NO 2673
LENGTH: 1431
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                                                 APPLICANT: SHIBA, TADAYOSHI
APPLICANT: SAKAKI, YOSHIYUKI
APPLICANT: HATTORI, MASAHIRA
TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
FILE REFERENCE: 249-262
           CURRENT APPLICATION NUMBER: US/10/156,76: CURRENT FILING DATE: 2002-05-29
                                                                                                                                                                                              APPLICANT: OMURA, SATOSHI
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RIOR APPLICATION NUMBER: JP 2001-204089
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FILING DATE: 2001-08-02
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HORIKAWA, HIROSHI
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HATTORI, MASAHIRA
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HORIKAWA, HIROSHI
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Conservative
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; ORGANISM: Streptomyces avermitilis
FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)..(18438)
US-10-156-761-2886
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; LENGTH: 125746
; TYPE: DNA
; ORGANISM: Streptomyces avermitilis
US-10-156-761-15102
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Best Local Similarity
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SEQ ID NO 2886
                                                                                                                                                                                          Query Match
                                                                                                                                                       Matches
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TITLE OF INVENTION: NOVEL POLYNUCLEOTIDES
FILE REFERENCE: 249-262
CURRENT APPLICATION NUMBER: US/10/156,761
CURRENT FILING DATE: 2002-05-29
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PRIOR APPLICATION NUMBER: JP 2001-272697
PRIOR FILING DATE: 2001-08-02
                                                                                                                                                                                                                                                                                                                               PRIOR APPLICATION NUMBER: JP 2001-272697
PRIOR FILING DATE: 2001-08-02
NUMBER OF SEQ ID NOS: 15109
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TYPE: DNA
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                                                                                                                                                                          Local
41985 CACATCGGCTCCTCACGGACGCTCGACTTCGCGGGACCTGGTGCGCGAGACGACCGGCGGC 42044
                                                                        41925 TTCGGCACCGCGAGCGAACCGAAGTGGAGCACCCTGCTCGACACCGGTCTCGACCGCGCG
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                                 1246 CGCGGCAGCGACGGCTATAGCGAAGACTTCGCGCTCCGCGTCCTGGAGAGGACTGGCTTG
                                                                                                              1186 TTCGTCTACGAGATGCAGCTGATGGCGAGCAAGGGCTACTACTGCTTCGTGAACCCG
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                                                                                                                                                       103;
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                                                                                                                                                                        2.5%;
Similarity 52.3%;
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SAKAKI, YOSHIYUKI
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HORIKAWA, HIROSHI
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Pred. No. 0.0034;
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Search Job ti	Дb	Qy	Db	Qy
Search completed: July 15, 2003, 16:41:38 Job time : 334 secs	42105 GCGATGCCGCGGCGG 42121	1366 GACAGGGAGCGCGTTGG 1382	42045 GCGGGCGTCGACGTACTGAACTCGCTCGCGGGGCGAGTTCACCGACGCCTCGCTGCGC 42104	1306 GAGGACTTTGAGGACATAATGAACGGCATCGAGGAGTTCTTCAAGCTCGAACCGCAGGCC 1365

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Post-processing: Minimum Match 0%
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Listing first 45 summaries
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re greater than or equal to the score of the result being printed,
is derived by analysis of the total score distribution.
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| Compared_fytcodatta/1/ina/5A_COMB.seq:*
| Cqn2_6/ptcodatta/1/ina/5B_COMB.seq:*
| Cqn2_6/ptcodata/1/ina/6A_COMB.seq:*
| Cqn2_6/ptcodata/1/ina/6B_COMB.seq:*
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US-08-232-463-14

US-08-761-277A-16

US-09-199-637A-116

US-09-199-637A-114

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US-09-233-35A-20
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US-09-016-080-2

US-08-211-682-24

US-09-024-0208-1

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US-08-664-646A-1
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INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 1869 NUCLEOTIDES
TYPE: NUCLEIC ACID
STRANDEDNESS: SINGLE
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Best Local Similarity
Matches 1869; Conserv
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Patent No. 5877001
                                                                                                                                                                                                 FILING DATE:
ATTORNEY/AGENT INFORMATION:
ANAME: Charles J. Herron
REGISTRATION NUMBER: 28,019
REFERENCE/DOCKET NUMBER: 3314
TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-994-1700
TELEFAX: 201-994-1744
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OPERATING SYSTEM: MS-DOS
SOFTWARE: WORD PERFECT 5.1
CURRENT APPLICATION DATA:
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FILING DATE: June 17, 1996
CLASSITICATION: 435
PRIOR APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
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STATE: NEW JERSEY
COUNTRY: USA
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STREET: 6
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CECCHI, STEWART
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US-08-387-942C-1

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US-07-951-715A-6

US-08-459-448A-6

US-08-459-59A-6

US-08-459-444-6

US-08-459-444-6

US-09-053-549-7

US-09-053-549-7

US-09-056-556-203

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US-09-072-596-198

US-08-669-656A-7

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RESULT 2 US-09-066-285-1 Sequence 1, Application US/09066285 Patent No. 5985646 Patent No. 598664 Patent	141 ATAGTCTTCACGGCGGGCCCAAGGGCATGTACGGACACGCTTCCGTTACGAATG

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SEQUENCE CHARACTERISTICS:
LENGTH: 1869 NUCLEOTIDES
TYPE: NUCLEIC ACID
STRANDEDNESS: SINGLE
TOPOLOGY: LINEAR
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Best Local Similarity
Matches 1869; Conserv
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SOSTWARE: WORD PERFECT 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/09/06
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/664,6
FILING DATE: June 17, 1996
ATTORNEY_AGENT INFORMATION:
NAME: Charles J. Herron
REGISTRATION NUMBER: 28,019
REFERENCE (COVERN WINDER: 28,019
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-994-1700
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18 - GCCTCAATGCCGAGGATTTCGCCAGACGGCAGAAAGCTCGCCTTCACCTGCTTTAACGAG 240	121 TACGAGAGGACGGTTGTTGAAGACCTTGAAACGGGCTCAAGGCGCTTCATCGAGAAC 180 	61 AGGATACGGGGAAACTTAATCGCGTACACCCTGACGAAGGCCAACATGAAGGACAACAAG 120 	1 ATGACCGGCATCGAATGGAACCACGAGACCTTTTCTAAGTTCGCCTACCTGGGCGACCCG 60	Query Match 100.0%; Score 1869; DB 3; Length 1869; Best Local Similarity 100.0%; Pred. No. 0; Matches 1869; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	STRANDENESS: SINGLE TOPOLOGY: LINEAR MOLECULE TYPE: DNA US-09-261-006-1	IMPORMATION FOR SEQ ID NO: 1: SEQUENCE CHARACTERISTICS: LENGTH: 1869 NUCLEOTIDES TYPE: NUCLEIC ACID	REFERENCE/DOCKET NUMBER: 331400-53 TELECOMMUNICATION INFORMATION: TELEPHONE: 201-994-1700 TELEPAX: 201-994-1744	FILING DATE: June 17, 1996 ATTORNEY/AGENT INFORMATION: NAME: COharles J. Herron REGISTRATION NUMBER: 28,019	FILING DATE: CLASSIFICATION: PRIOR APPLICATION DATA: APPLICATION NUMBER: 08/664,646	OPERATING SYSTEM: MS-DOS SOFTWARE: WORD PERFECT 5.1 CURRENT APPLICATION DATA: APPLICATION NUMBER: US/09/261,006	068 EADABLE FO YPE: 3.5 : IBM PS/	BECKER FARM ROAD LAND JERSEY SA	NUMBER OF SEQUENCES: 4 CORRESPONDENCE ADDRESS: ADDRESSEE: CARELLA, BYRNE, BAIN, GILFILLAN, ADDRESSEE: CECCHI, STEWART & OLSTEIN	atent No. 6004796 GENERAL INFORMATION: APPLICANT: Murphy et al. TITLE OF INVENTION: Amidases	RESULT 3 US-09-261-006-1 ; Sequence 1, Application US/09261006	1861 GGGAACTGA 1869 1861 GGGAACTGA 1869	1801 GAGCGCAAGCTCAAGAAGTACGAGGAGGGCTTTGAGGTAGAGATACTCAAGGGGAAT 1860 	1741 AGCGTCCGCGGAAGCCCGAAGCCAGGCCGAAGCGCTACAGGCTCTTCATAGAGTTCTTC 1800
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                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 INCH DISKETTE
COMPUTER: IBM PS/2
OPERATING SYSTEM: MS-DOS
SOFTWARE: WORD PERFECT 5.1
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/951,08
FILING DATE:
CLASSIFICATION: 435
                                                                                                                                                                                                                                                                                          APPLICANT: Murphy
                                                                                                                                                                                                                                            NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
ADDRESSE:
       PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/6
FILING DATE: June 17, 19
ATTORNEY/AGENT INFORMATION:
NAME: Charles J. Herron
                                                                                                                                                                                                                                                                           TITLE OF INVENTION: Ami
                                                                                                                                                                                               STREET: 6 BECKI
CITY: ROSELAND
STATE: NEW JER
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ZIP: 07068
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TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-994-1700
TELEPAX: 201-994-1744
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 1869 NUCLEOTIDES
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Best Local Similarity
Matches 1869; Conserv
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Pred. No. 0;
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US-09-609-566-1
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Patent No. 6429004
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                                                                                                                                                                                                                                                                                                                                                                Best Local
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INFORMATION FOR SEQ ID NO: 1:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ATTORNEY/AGENT INFORMATION:
NAME: Charles J. Herron
REGISTRATION UNMER: 28,019
REFERENCE/DOCKET NUMBER: 3314
TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-994-1700
TELEPHONE: 201-994-1744
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CLASSIFICATION:
PRIOR APPLICATION UMBER:
APPLICATION NUMBER:
FILING DATE:
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CORRESPONDENCE ADDRESS:
ADDRESSER: ORDERS
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LENGTH: 1869 NUCLEOTID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SOFTWARE: WORD PERFECT 5.1 CURRENT APPLICATION DATA:
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MEDIUM TYPE: 3.5 INC
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CITY: R
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SOFTWARE: WORD PI
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Pred. No. 0;
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                    GGAATAACGGGCATAAGCTACGGCGGCTTCATGACCAACTGGGCCCTTGACTCAGAGCGAC
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                                                                                                                                                                                                                                                                                                                                                                                                            Sequence 1, Application Patent No. 6465204 GENERAL INFORMATION:
                            INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
LENGTH: 1869 NUCLEOTIDES
                                                                                                                                                                          COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5 INCH DISKETTE
COMPUTER: IBM PS/2
OPERATING SYSTEM: MS-DOS
SOFTWARE: WORD PERFECT 5.1
CURRENT APPLICATION NUMBER: US/09/609,570
FILING DATE: 30-Jun-2000
CLASSIFICATION: <Unknown>
                                                      NAME: Charles J. Heiron
REGISTRATION NUMBER: 28,01.
REFERENCE-DOCKET NUMBER: 3:
TELECOMMUNICATION INFORMATION:
TELEPHONE: 201-994-1700
TELEPAX: 201-994-1744
ORMATION FOR SED TO NO.
                                                                                                                       APPLICATION NUMBER: 09/427,372
FILING DATE: <Unknown>
ATTORNEY/AGENT INFORMATION:
NAME: Charles J. Herron
                                                                                                                                                                    PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                            TITLE OF INVENTION: Amidases NUMBER OF SEQUENCES: 4
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CECCHI, STEWART &
STREET: 6 BECKER FARM ROAD
CITY: ROSELAND
STATE: NEW JERSEY
COUNTRY: USA
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                     GATGCGATAGTTGTGAACGTCCCGCACCGCGAGGGGAGCCAAGCCTGCCCTGTTCAAGTTC
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RESULT 7

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; Sequence 2, Application U;
; Patent No. 6133012
; GENERAL INFORMATION:
; APPLICANT: IShikawa, Kax
; APPLICANT: IShida, Hiroy,
; APPLICANT: Kosugi, Yoshi
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                              Kaxuhiko
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; NAME/KEY: CDS
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CURRENT FILING DATE: 1998-01-30
EARLIER APPLICATION NUMBER: JAPAN 18381/1997
EARLIER FILING DATE: 1997-01-31
NUMBER OF SEQ ID NOS: 2
SOFTWARE: PATENTIN VET. 2.0
SEQ ID NO 2
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Best Local Similarity
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TITLE OF INVENTION: THERMOSTABLE ACYL PEPTIDE HYDROLASE AND GENE ENCODING
TITLE OF INVENTION: THE SAME
FILE REFERENCE: 07898/022001
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RESULT

RESULT 9 US-09-024-020B-1

Sequence 1, Application Patent No. 6030810

US/09024020B

GENERAL INFORMATION:

APPLICANT: APPLICANT: APPLICANT:

DELGADO, STEPHEI DIETRICH, PAUL : FISH, LINDA M.

SANGAMESWARAN, LAKSHMI

RONALD C STEPHEN 1, PAUL S.

HERMAN,

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Matches 161; Conservative
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Patent No. 5
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICATION NUMBER: US
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 1598 base pair:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0
CURRENT APPLICATION DATA:
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NAME/KEY:
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MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       FEATURE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 1598 base pairs TYPE: nucleic acid STRANDEDNESS: double
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LOCATION:
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                                                                                                                                                                                                                                                                                                      1565 TCAGGAAGCTCAGCCCGCTGTTCTACGCTCAGAACGTGAAGGCGCCGATACTCCTAATCC 1624
   629
                                                                                                                                                                                                                                   ACTCGCTTGAGGACTACCGCTGTCCGCTCGACCAGAGCCTTATGTTCTACAACGTGCTCA 1684
CCCTGGCCGAGGTGGCCAAGAAGGACGTCAAGGTGCTGGTGGTGGGCAA 677
                               GCAAGCTCAAGAAGTACGAGGAGGGCTTTGAGGTAGAGAAGATACTCAA 1853
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                                                                                                 TCCGCGGAAGCCCGAGGCACAGGCCGAAGCGCTACAGGCTCTTCATAGAGTTCTTCGAGC 1804
                                                                                                                                 TGGAGCTGGAGGACTGCGCCTTCCCCCTGCTTGCGGGGCCTCGAGGCCCACCGACGACCCCA
                                                                                                                                                                                                                                                                      CGGTGATCCTCCAGCTTTTGGAGATCCCCCAGGCCATGAAGGCCCCTGGAGGGCGTGGTCA
                                                                 GGATGGAGCGCCGGGACCTTTTGCAGGTAAACGGCAAGATCTTCACCGAGCAGGGCCGGG
                                                                                                                                                                                                                                                                                                                                          AGATCGGCTACAGCCTCCTCTTCCGCATCGCCGCGGGGAGATGCTGGGCAAGGACCAGC
                                                                                                                                                                   AGGACATGGGCAAGGAAGCCTACATAGCGATATTCAAGCGCGGCGCCCACGGCCACAGCG 1744
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286..1269
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228..233
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Pred. No. 0.0065;
0; Mismatches 188;
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                                                                                                                                    RESULT 10
US-09-425-043-1
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                                                                                                Sequence 1, Application US/09425043 Patent No. 6335172
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APPLICATION NUMBER: US 60/039,447
FILING DATE: 26-FEB-1997
ATTORNEY/AGENT INFORMATION:
NAME: CLARK, JANET P.
REGISTRATION NUMBER: 34,799
REFERENCE/DOCKET NUMBER: R0020B-REG
                                                                               GENERAL INFORMATION:
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ZIP: 94304-1397
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MOLECULE TYPE: DNA (genomic)
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                                                  APPLICANT:
                                                                  APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: nucleic acid
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CITY: PALO ALTO
STATE: CA
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                                                                                                                                                                                                                                                                                                                                                                                                            CCTGTTCATCGGTGTCATCATCGACAACTTCA 4417
                                                                                                                                                                                                                                         CCTCTTCAAGGCAGGAATAAGCGAGAACGGCA 1471
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                              DELGADO, STEPHEN G.
DIETRICH, PAUL S.
FISH, LINDA M.
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SANGAMESWARAN, LAKSHMI
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                 HERMAN,
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                 RONALD C
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 141;
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US-09-024-020B-2

Sequence 2, Application US/09024020B Patent No. 6030810

GENERAL INFORMATION:

APPLICANT: APPLICANT:

DELGADO, STEPHEN G. DIETRICH, PAUL S. FISH, LINDA M.

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US-09-425-043-1
RESULT 11
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Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                         Matches
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   REGISTRATION NUMBER: 34,799
REFERENCE/DOCKET NUMBER: RO
TELECOMMUNICATION INFORMATION:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 CORRESPONDENCE ADDRESS:
ADDRESSEE: JANET PAULINE CLARK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE CHARACTERISTICS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 5977 base pairs
TYPE: nucleic acid
STRANDEDNESS: single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE
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                                                         4386 CCTGTTCATCGGTGTCATCATCGACAACTTCA 4417
                                                                                                                                                                      1380 TGGAATAACGGGCATAAGCTACGGCGGCTTCATGACCAACTGGGCCCTTGACTCAGAGCGA 1439
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                                                                                                                                                                                                                                                                                        1260 CTATAGCGAAGACTTCGCGCTCCGCGTCCTGGAGAAGGACTTGGCTTGGAGGACTTTGAGGA 1319
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94304-1397
                                                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
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                                                                                             CCTCTTCAAGGCAGGAATAAGCGAGAACGGCA 1471
                                                                                                                                   CATCTACATGTACATCTACTTCGTCATCTTCATCATCTTCGGCTCCTTCTTCACCCTCAA 4385
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                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
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SYSTEM: PC-DOS/MS-DOS
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Pred. No. 0.
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                                                                                      US-09-425-043-2
                                                 Sequence 2, Application US/09425043 Patent No. 6335172
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Best Local Similarity
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                               GENERAL INFORMATION:
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   APPLICANT:
                   APPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  REFERENCE/DOCKET NUMBER: ROTELECOMMUNICATION INFORMATION: TELEPHONE: (650) 852-3097
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MEDIUM TYPE: Floppy disk
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CURRENT APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
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94304-1397
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DELGADO, STEPHEN G
DIETRICH, PAUL S.
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FENTION: NOVEL CLONED TETRODOTOXIN-SENSITIVE
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Sequence 7, Application Patent No. 6030810 GENERAL INFORMATION:

US/09024020B

APPLICANT:

STEPHEN G

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RESULT 13
US-09-024-020B-7
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INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 6007 base pairs
TYPE: nucleic acid
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ZIP: 94304-12.,
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IEM PC compatible
COMPUTER: PC-TOS/MS-DOS
41.0
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NAME: CLARK, JANET P.
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SANGAMESWARAN, LAKSHMI
SENSITIVE
VENTION: NOVEL CLONED TETRODOTOXIN-SENSITIVE
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Pred. No. 0.029;
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               Sequence 7, Application US/09425043 Patent No. 6335172 GENERAL INFORMATION:
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Best Local Similarity
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INFORMATION FOR SEQ ID NO:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: Patentin Rclease #1.0, CURRENT APPLICATION DATA:
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MEDIUM TYPE: Floppy disk
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ADDRESSEE: JANET PAULINE CLARK
APPLICAM: DELGADO, STEPHEN G.
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STRANDEDNESS: single
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CITY: PALO ALTO
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ZIP: 94304-1397
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                                                                                                                                                                                 CCTCTTCAAGGCAGGAATAAGCGAGAACGGCA 1471
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VENTION: NOVEL CLONED TETRODOTOXIN-SENSITIVE
VENTION: SODIUM CHANNEL I-SUBUNIT AND A SPLICE VARIANT THEREOF
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26-FEB-1997
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Pred. No. 0.03;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 3; Length 6556;
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Best Local Similarity
Matches 131; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TELEFAX: (650) 855-53
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 6556 base pair
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMONICATION INFORMATION:
TELEPHONE: (650) 852-3097
TELEFAX: (650) 855-5322
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: 26-FEB-199/
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SOFTWARE: PatentIn Release #1.0, CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            PRIOR APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT:
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FILING DATE: 16-ELL G
APPLICATION NUMBER: US 60
AP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CLASSIFICATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FILING DATE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICATION NUMBER:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COUNTRY:
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                                                                                                                                  4473
                                                               1440 CCTCTTCAAGGCAGGAATAAGCGAGAACGGCA 1471
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                                                                                                                                      CATCTACATGTACATCTACTTCGTCATCTTCATCTTCGGCTCCTTCTTCACCCTCAA 4532
                                                                                                                                                                                                                                                                            CATCATGTATGCGGCTGTAGATTCCCGAAAGCCAGACGAGCAGCCTGACTACGAGGGCAA 4472
CCTGTTCATCGGTGTCATCATCGACAACTTCA 4564
                                                                                                                                                                                              TGGAATAACGGGCATAAGCTACGGCGGCTTCATGACCAACTGGGCCTTGACTCAGAGCGA 1439
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FISH, LINDA
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SYSTEM: PC-DOS/MS-DOS
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, JANET P. 34,799
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NOVEL CLONED TETRODOTOXIN-SENSITIVE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 141;
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US-09-024-020B-43 ; Sequence 43, Application US/09024020B ; Patent No. 6030810

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SEQUENCE CHARACTERISTICS:
LENGTH: 6586 base pairs
LENGTH: 6586 base pairs
LENGTH: 6586 base pairs
STRANDEDNESS: single
STRANDEDNESS: single
TOPOLOGY: linear
MOLECULE TYPE: DNA (genomic
US-09-024-020B-43
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Best Local Similarity 48.2%;
Matches 131; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: HERMAN, R
APPLICANT: SANGAMESW
TITLE OF INVENTION:
TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           REGISTRATION NUMBER: 34,799
REFERENCE/DOCKET NUMBER: ROTELECOMMUNICATION INFORMATION:
TELEPHONE: (650) 852-3097
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   CLASSIFICATION: 536
PRIOR APPLICATION DATA:
APPLICATION UNDBER: US 60/039,447
FILING DATE: 26-FEB-1997
ATTORNET/AGENT INFORMATION:
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CITY: PALO ALTO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          COUNTRY: U.S.A.
ZIP: 94304-1397
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              NAME: CLARK, JANET P.
                                        4503 CATCTACATGTACATCTACTTCGTCATCTTCATCTTCGGCTCCTTCTTCACCCTCAA 4562
                                                               1380 TGGAATAACGGGCATAAGCTACGGGGGCTTCATGACCAACTGGGCCTTGACTCAGAGCGA 1439
                                                                                                                           4443 CATCATGTATGCGGCTGTAGATTCCCGAAAGCCAGACGAGCAGCCTGACTACGAGGGCAA 4502
                                                                                                                                                         1320 CATAATGAACGGCATCGAGGAGTTCTTCAAGCTCGAACCGCAGGCCGAACAGGGAGCGCGT 1379
                                                                                                                                                                                                                 1260 CTATAGCGAAGACTTCGCGCTCCGCGTCCTGGAGAGCACTGGCTTGGAGGACTTTGAGGA 1319
                                                                                                                                                                                                                                                                                                     4323 GAAGCTCATGGAGGGCAACAGCACGGAGATCCGATGGAAGAATGTCAAGATCAACTTTGA 4382
                                                                                                                                                                                                                                                                                                                                             1200 GCAGCTGATGGCGAGCAAGGGCTACTACTGCTGCTTCGTGAACCCGGCGGCAGCGACGG 1259
1440 CCTCTTCAAGGCAGGAATAAGCGAGAACGGCA 1471
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3401 HILLVIEW AVENUE, MS A2-250
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VENTION: NOVEL CLONED TETRODOTOXIN-SENSITIVE
VENTION: SODIUM CHANNEL I-SUBUNIT AND A SPLICE VARIANT THEREOF
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         DIETRICH, PAUL S.
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HERMAN, RONALD C
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                                                                                                                                                                                                                                                                                                                                                                                          Score 46.4; DB 3;
Pred. No. 0.03;
0; Mismatches 141;
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Search completed: July 15, 2003, 15:25:38 Job time : 98 secs

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OM nucleic - nucleic search, using sw model
                                                                 Run on:
July 15, 2003, 10:00:38 ; Search time 433 Seconds (without alignments) 9720.519 Million cell updates/sec
                                                                                                                                                                           GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd.
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	Title: US-09-966-803-1 Perfect score: 1869 Sequence: 1 ATGACCGGCATCG
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Scoring table: IDENTITY_NUC Gapop 10.0 , Gapext 1.0 GAATGGGAACTGA 1869

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Total number of hits satisfying chosen parameters:

4370478

2185239 seqs, 1125999159 residues

Searched:

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

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Bacillus clausii g P. putida KT2440-a	Pyrococcus horikos Lactobacillus rham	Bacillus subtilis Bacillus lichenifo	Pyrococcus abyssi	Pyrococcus abyssi	Thermococcus amida	Description	

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ALIGNMENTS

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Murphy D, Reid JC, Robertson D;	(RECO-) RECOMBINANT BIOCATALYSIS INC.	17-JUN-1996; 96US-0664646.	17-JUN-1997; 97WO-US09319.	24-DEC-1997.	WO9748794-A1.	/transl_except= (pos:12311233, aa:Val)	1000.1000 1000		Key Location/Qualifiers		Thermococcus sp. strain GU5L5.	μ-amino acia; peptide; peptidomimetic; archaebacterium; ss.	Amidase; thermostable enzyme; optically active compound;		Thermococcus amidase gene.		22-JUN-1998 (first entry)		AAV12887;		AAV12887 standard: DNA: 1869 BP	RESULT 1

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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          thermostable amidase (see AAW41248) of the archaebacterium
Thermococcus GUSL5. It was isolated from a genomic library of
GUSL5 by screening for amidase activity, and subjecting DNA from a
positive clone to PCR amplification (see AAV12888-89). The nucleic
acid can be used in the production of amidase in host cells, and to
identify related sequences encoding similar enzymes. The encoded
amidase is used to remove Arg, Phe or Met from the N-terminus of
synthetic peptides or peptidomimetics (claimed). Removal of the
N-terminal residue can be done even in the presence of a more
reactive ester bond (very difficult to achieve non-enzymatically).
The amidase is selective for L-amino acids and can therefore be
used to produce optically active compounds. The protein tolerates
temperatures up to at least 70 degC and high concentrations of
organic solvent (e.g. over 40% dimethyl sulphoxide) so can cleave
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Query Match
Best Local Sim
Matches 1869;
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P-PSDB; AAW41248.
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                         TTCGACAATATGGGATTCTTTGATGGAGAGAAGACGACGTTCTGGGTTCTTGACACTGAG
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                                                                                      The present invention relates to the genomic sequence of Pyrococcus abyssi and P. abyssi proteins (see AAB96053-AAB96842). P. abyssi is a hyperthermophilic archaeon, which is isolated from deep-sea hydrothermal vents. The present sequence is a fragment of the genomic sequence of P. abyssi. The 5' end of this sequence overlaps with the 3' end of AAH41227 and the 3' end of this sequence overlaps with the 5' end of AAH41227. The proteins of the present invention have various potential industrial uses, since the proteins are stable at very high temperatures, some up to 110
                                       Note: This patent is in the same patent family as WO200065062,
                                                                                                                                                                                                                                                                                                     Claim 1; Page 511-606; 1657pp;
contains additional sequences as AAH75903-AAH75920 and AAG66436.
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Querellou J,
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           GAGCTTTACGCTCTCAGGGATGGAAAAGAGAAGCGTATCACAGACTTTAACGCCTGGA--
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Pyrococcus abyssi encode

The present invention relates to the genomic sequence of Pyrococcus abyssi and P. abyssi proteins (see AAB96053-AAB96842). P. abyssi is a hyperthermophilic archaeon, which is isolated from deep-sea hydrothermal vents. The present sequence is a fragment of the genomic sequence of P. abyssi. The 5' end of this sequence overlaps with the 3' end of AAH41226. The proteins of the present invention have various potential industrial uses, since the proteins are stable at very high temperatures, some up to 110 degrees centigrade. which

75226 A; 61302 C; 54005 G; 74585 T; 0 other;

Score 150.8; DB 22; Pred. No. 4.1e-27; 0; Mismatches 487; Indels Length 265118; 24; Gaps

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TACGGGCTTGACGTCAGCGATGGCCAAAGCATTGCTCCTCATCATGACCGCCACGAGGATA GAGAGCTTTTCCGTTGGTGATTACATAGCATTTACAGCTCAAGATGCGACAACTCCGACT 58823

GGCGAGCTCTACCTCTACGACGGCGAGCTGAAACAGGTCACCGAATACAACGGGCCGATA 58765

TTCAGGAAGCTCAAGACCTTCGAGCCGAGGCACTTCCGCTTCAAG----AGCAAAGACCTC 1086

GAGATAGACGGCTGGTACCTCAGGCCGGAGGTTAAAGAG-----GAGAAGGCCCCGGTG -TTAGGGACTATAAACTTTCAAAACCAGAGCACTTCAGGGTTACGGCTAGCGATGGGAAG 58706

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SFI vertical homology to the S9 type serine protease dap2 of yeast.
SF2, SF3, SF4 and SF5 were identified by their structural and
coverall amino acid homology to SPI. Host cells in which the
maturally occurring gene encoding one or more of SPI, SF2, SF3,
SF4 or SF5 is mutated such that the proteolytic activity is
diminished or deleted altogether, can be used for the production of
cheterologous proteins, e.g. a hormone, enzyme, growth factor,
cytokine, protease, carbohydrase, lipase, racemase, epimerase,
cytokine, protease, transferase, kinase or phosphatase (claimed).
SF1, SF2, SF3, SF4 and SF5 can also be produced on a large scale
compositions such as detergents, bar or liquid soap, dish-care
formulations and contact lens cleaning solutions, or for peptide
fusion-cleavage enzymes in protein production, and as animal feed
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Use of serine protease genes from Gram-positive microorganisms - for modification of host cells for the production of heterologous proteins or for producing proteins for use in cleaning compositions
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P-PSDB; AAW97789.
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1612 ATACTCCTAATCCACTCGCTTGAGGACTACCGCTGTCCGCTCGACCAGAGCCTTATGTTC
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                                                                         GACACAGAAAAGCTCTGGGACCGGTCTCCTTTAAAATACGCAGCAAACGTGGAGACACCG
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0; Mismatches
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                                                    The invention describes a method of monitoring differential expression of companies in a first Bacillus cell relative to expression of the genes in the content of the genes in content of the genes in content of the genes in the content of the genes in the genes in the array of Bacillus cells to a substrate containing array of Bacillus content of the gene expression by an observed hybridisation reporter signal of the genes in a first Bacillus cell relative to expression of the same genes content of the genes in a first Bacillus cell relative to expression of the same genes in one or more second Bacillus cells. The method is useful for monitoring content of genes in the genes and genes from a Bacillus cell, discovering new genes, identifying possible functions of unknown open reading frames and contitoring gene copy number variation and stability. Monitoring changes in culture conditions, contituded in the genes may be used to provide a representation of the way in which Bacillus cells adapt to changes in culture conditions, convenient of the core copy numbers and the provide and the conditions of the copy numbers of the provide and the conditions.
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                                                                                                                                                                                                                                                                                                                                                                                              Claim 4; SEQ ID NO 224; 200pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Monitoring differential expression of several genes in first Bacillus cell relative to expression of same genes in one or more second
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27-MAR-2001;
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                        equals one gene or one open reading frame, since sequence is available. This sequence represents a genomic sequence tag
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 2002-416684/44.
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Pred. No. 2.6
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Pyrococcus horikoshi acylpeptide hydrolase;
                                 Pyrococcus
                                                   29-DEC-1998
                                                                      AAV33582;
                                                                                       AAV33582 standard; DNA; 1896 BP
                                horikoshi acylpeptide hydrolase encoding
                                                  (first entry)
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DNA sequence

Pyrococcus horikoshi

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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The present sequence represents a Pyrococcus horikoshi acylpeptide hydrolase encoding DNA sequence. The enzyme has the following properties: (a) it hydrolyses an acylpeptide; (b) an optimum temperatur of 90-95 degrees Centigrade; (c) an optimum pH of 5.0-6.0; (d) no loss of activity when heated to 95 degrees Centigrade for 3 hours at pH 7.5; and (e) a molecular weight of 60 kDa. The enzyme is claimed useful for hydrolysing the amino end of an acylated protein and a peptide at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 5; Pages 6-7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 31-JAN-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity
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                                                                                                                                                                                                                                                                                                                                                                                             CACCGCTTCGTCTACGAGATGCAGCTGATGGCGAGCAAGGGCTACTACTGCTGCTTCGTG
AACGTGAAGGCGCCGATACTCCTAATCCACTCGCTTGAGGACTACCGCTGTCCGCTCGAC
                           AAAGATCCCTGGAGCAACTTGGAAGGTTATTGGGAAAAGAGCCCCATTAAAGTACGCTCCC
                                                                                                                                                         TGGGCCTTGACTCAGAGCGACCTCTTCAAGGCAGGAATAAGCGAGAACGGCATAAGCTAC
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                                                      CCAAATCCGTTAGAGAAC---GAGAACTTCAGGAAGCTCAGCCCGCTGTTCTACGCTCAG
                                                                                 TGGATAAGCTTCTTCGGGACAACGGATATAGGTTATTACTTTGCTCCAGATCAAATAGGA
                                                                                                 TGGCTCACCAGCTACGCCTTCTCGGACATAGGGCTCTGGTACGACGTCGAGGTCATCGGG
                                                                                                                                         TGGATAGTCGGACATACCAACAGGTTCAAAGCCGCTGTAACCCAGAGATCAATTTCAAAT
                                                                                                                                                                                                 TTCATAGATGGGGAAAGGCTAGGAGTTACCGGGGGTTCCTATGGTGGCTTCATGACGAAC
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                                                                                                                                                                                                                                                                                                                                      AACCCGCGCGCAGCGACGGCTATAGCGAAGACTTCGCGCTCCGCGTCCTGGAGAGGACT
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/product= "Pyrococcus
/note= "CDS does not o
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Location/Qualifiers
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Pred. No. 3.3e-
0; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       433 T; 0 other;
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RESULT 7

ABQ8 ABQ8

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The invention relates to an isolated polynucleotide (I) comprising a CC nucleotide sequence (Abg86185-Abg86243) present in Lactobacillus CC rhamnosus strain HN001 that encodes a polypeptide (Abp861020-Abp61060) with activity such as enzyme activity; anti-infection activity; lactose CC digestion modulating activity; immune system modulating activity; amino CC acid, lipid, vitamin or carbohydrate metabolic activity, flavour, texture CC or aroma modulating activity. (I) is useful for improving the properties CC of microbes used in the manufacture of milk-derived products and CC probiotic supplements, which involves modulating the polynucleotide CC content or composition of the microbes by transforming the microbes with CC (I). (I) is also useful for identifying an organism (preferably a bacterial or yeast cell) or reproductive material or an extract from the CC organism, as having a specific origin. Proteins encoded by (I) are useful CC organism, as having a specific origin. Proteins encoded by (I) are useful consentits of milk-derived products, which involves adding one or more polypeptides to the milk being processed. Genetic constructs comprising
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 밁
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel isolated Lactobacillus rhamnosus polynucleotides encoding polypeptide with anti-infection/lactose digestion modulating activity, useful to improve properties of microbes used in milk-derived products
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (GENE-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 2; Page 63; 128pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       manufacture
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metabolic activity; nutrition; health; transgenic; lactic acid bacteria;
genome mapping; gastrointestinal disorder; dairy processing; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO200244383-A1
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DB; ABP61033.
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VIALACTIA BIOSCIENCE NZ LTD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         composition that is effective for treating or preventing a gastrointestinal condition or disorder caused by the presence of pathogenic microbes in the gastrointestinal tract. Proteins are used to craise antibodies, to isolate corresponding interacting proteins, as cultivional additives and as additives in dairy processing and contritional additives and as additives in dairy processing and contrition processing. (I) and encoded proteins are used for the contribution and production of more effective problotic bacteria, as confidently ingredients and health supplements, for conditive (health promoting) ingredients and health supplements, for conditied bacteria as adjuvants; for reduction of blood lipids such as confident production of blooditive material from genetically conditied bacteria as adjuvants; for wound healing; in vaccine development, in selection and production of genetically modified rumen confidence in the confidence of the condition of genetically modified rumen for improved animal nutrition and productivity, better
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (I) are useful for modulating the polynucleotide content or composition of a organism. (I) is useful for identifying, isolating or synthesising DNA molecules such as promoter; DNA binding elements, open reading frames or full-length genes, that then can be used as expressible DNA in transgenic organisms. (I) may be used to detect lactic acid bacteria, preferably L. rhamnosus in a sample material. (I) is also useful for genome mapping, physical mapping, and in positional cloning of genes of more or less related microbes, and to design probes and primers. (I) is also useful for transforming microbes for use in a therapeutic
Bacillus clausii genomic sequence tag (GST) #418.
                                                 13-AUG-2002 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 1032 BP; 252 A; 220 C; 281 G; 279 T; 0 other;
                                                                                                                                          ABK77575 standard; DNA; 477 BP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                flavour and improved milk composition.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                             TAACGGGCATAAGCTACGGCGGCTTCATGACCAACTGGGCCTTGACTCAGAGCGACCTCT 1444
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                                                                                                                                                                                                                                                                                                                                             TCAAGGCAGGAATAAGCGAGAACGGCATAAGCTACTGGCTCACCAGCTACGCCTTCTCGG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; DB 24;
2.7e-09;
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1546 CCGTTAGAGAACGAGAACTTCAGGAAGCTCAGCCCGCTGTTCTACGCTCAGAACGTGAAG 1605

AGTTTTTATGGCGTAAGCGATATTGGCTACTATTTTCAGAGTGGCAAATAAAAGCAGAC ACCAGCTACGCCTTCTCGGACATAGGGCTCTGGTACGACGTCGAGGTCATCGGGCCAAAT 1545

Query Match Best Local : Matches

al Similarity 167; Conserv

Conservative

3.5%; 49.9%;

Score 66.2; DB 24; Pred. No. 8.6e-07;

Mismatches

168;

Indels Length

Gaps

0

477; 0,

1366

30

1426 TTGACTCAGAGCGACCTCTTCAAGGCAGGAATAAGCGAGAACGGCATAAGCTACTGGCTC 1485

GTTGGCCATACGAATCGGTTCAAAGCGGCCGTTACGCAACGCTCGATATCCAATTGGATT 149

GACAGGGAGCGCGTTGGAATAACGGGCATAAGCTACGGCGGCTTCATGACCAACTGGGCC 1425

GATCAGGAGCGCATCGGTCTGACTGGGGGGAAGTTACGGTGGCTTTATGACGAATTGGGCT

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genes, identifying possible functions of unknown open reading frames and monitoring gene copy number variation and stability. Monitoring changes in expression of genes may be used to provide a representation of the way in which Bacillus cells adapt to changes in culture conditions, environmental stress or other physiological provocation. Extensive follow-up characterisation is unnecessary, when one spot on an array equals one gene or one open reading frame, since sequence information is available. This sequence represents a genomic sequence tag (GST) used in the method of the invention.

Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly from WIFO
                                                                                                                                                                                                                                                                                                                  The invention describes a method of monitoring differential expression of genes in a first Bacilius cell relative to expression of the genes in other Bacilius cells, comprising hybridising labelled nucleic acid probes isolated from Bacilius cells to a substrate containing array of Bacilius genomic sequenced tags (GST), examining the array, and determining relative gene expression by an observed hybridisation reporter signal of a spot in the array. The method is useful for measuring the expression of genes in a first Bacilius cells relative to expression of the same genes in one or more second Bacilius cells. The method is useful for monitoring placed in the same genes in one or more second Bacilius cells. The method is useful for monitoring new global expression of several genes from a Bacilius cell, discovering new
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Monitoring differential expression of several genes in first Bacillus cell relative to expression of same genes in one or more second Bacillus cells, by using substrate containing Bacillus genomic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (NOVO)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Differential gene expression; genomic sequenced tag; GST altered culture condition; environmental stress;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   physiological provocation;
                                        ftp.wipo.int/pub/published_pct_sequences
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 11; SEQ ID NO 4866; 200pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       sequenced tag array
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27-MAR-2001;
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NOVOZYMES AS.
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2001US-279526P.
  вP,
  138 A; 89 C;
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118 G;
  132 T; 0 other;
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ARESULT 9
AAF60975
ID AAF6
XX AAF6
XX AAF6
XX AAF6
XX IG-M
XX ITAN
XX 
CC (1); (3) production of expression products by culturing cells of (2); (2) expression products, or their fragments, of (1) and synthetic CC proteins or peptides with the same sequences (A); (5) poly- or CC mono-clonal antibodies (Ab) that react specifically with (A); (6) hybridoma cells that produce the monoclonal Ab of (5); (7) transgenic CC plants that contain transformed or transfected cells of (2); (8) CC detecting KT2440 using a labeled (1) or Ab as probe; and (9) DNA chips CC carrying one or more (1), (1), and their fragments, are used as probes CC to detect and isolate full-length cDNAs and/or to amplify such cDNAs by CC polymerase chain reaction, and for production of transgenic plants. (1), CC or antibodies that recognize their expression products, are used for CC detecting the presence of KT2440, particularly in presence of other, CC even closely related, bacteria. KT2440 is one of the bacteria classified as safe, by the National Institutes of Health, for genetic engineering CC work, e.g. as microbial production strains, for biological remediation and as vaccine carriers. (1) are exclusive to KT2440 with no significant CC has greater catabolic activity and better survival in, and adaptation to, the rhizosphere and soil.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           밁
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This invention describes novel DNA sequences (I) for specific detection of Pseudomonas putida KT2440. The invention also describes (I) recombinant expression vector containing (I); (2) prokaryotic or eukaryotic cells transformed or transfected with (I) or the vector of (1); (3) production of expression products by culturing cells of (2);
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Claim la; Page 21-22; 158pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 New DNA sequences specific for Pseudomonas putida KT2440, useful as
safe genetic engineering host, allow detection in presence of other
related bacteria -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Transgenic plant; detection; microbial production strain;
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(DKFZ-)
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Pred. No. 0.
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Antisense; ds; prokaryotic cellular proliferation gene antibiotic; antibacterial; drug design.

Pseudomonas aeruginosa DNA

for cellular proliferation protein

13-FEB-2002 AAS54375;

(first entry)

AAS54375 standard; DNA; 783

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Matches 205;
                                                                                                                                                                                                                                                                                                                                                                                                                                                to identify proteins used in proliferation, to express these proteins, and to obtain antibodies capable of binding to the expressed proteins. The proteins can be used to screen compounds in rational drug discovery programmes. The antisense nucleic acid sequence is also useful to screen for homologous nucleic acids which are required for cell proliferation in a wide variety of organisms. The present sequence encodes an essential prokaryotic cellular proliferation protein.

Note: The sequence data for this patent did not form part
                                                                                                                                                                                                                                                                                                                                                                        Sequence 783
                                                                                                                                                                                                                                                                                                                                                                                                                     of the printed specification, but was obtained in electronic format directly from WIPO at
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            genes, their use in the discovery of novel antibiotics, the essential genes themselves and the encoded proteins. The prokaryotes used are Escherichia coli, Staphylococcus aureus, Salmonella typhi, Klabsiella pneumoniae, Pseudomonas aeruginosa and Entercoccous faecalis. The invention is also useful for the identification of potential new targets for antibiotic development. The antisense nucleic acids can also be used
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The invention relates to antisense inhibitors of genes essential to prokaryotic cellular proliferation, their use in identifying the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           New polynucleotides for the identification and development antibiotics, comprise sequences of antisense nucleic acids
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Yamamoto RT,
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22-DEC-2000;
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1122 AGAGGAGAAGGCCCCCGGTGATAGTCCTTCCGTCCACGGCGGGCCGAAGGGCATGTACGGACA 1181
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                                                                                                                                                                              CCTCACCGTCGCCGCCCCCGGTGCCGCACGCGGAGATCCTCAACGTGGTCAAGCCGCT
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                                                                                                                                                                                                                                         GCTTGCTGCTTTCTCCGCTGTCGCGGCGCCTCGCCTCACCGCCCCAGGCCGCCGAGTC
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                                                CGTGCAGGTCTCGGAAAAGCGCCTGGACGCCAACTTCTTCCAGCACCAGCCGTACCTCGA
                                                                              CTTCCGCTTCAAGAGCAAAGACCTCGAGATAGACGGCTGGTACCTCAGGCCGGAGGTTAA 1121
                                                                                                              GCTGGCCAAGGAAGGCGTGGACCTGAAGATCAAGGAGTTCACCGACTACGTGCAGCCGAA
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2000US-257931P.
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Xu HH;
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Pred. No. 0.00066;
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the FF cells and a substrate of expressed sequence tags (EST). The ESTS in a first filamentous fungal (FF) cell relative to expression of genes in a first filamentous fungal (FF) cell relative to expression of the same genes in one or more second filamentous fungal cells. Monitoring the global expression of genes from FF cells allows the production potential of the microorganisms to be improved. New genes may be cliscovered, possible functions of unknown open reading frames can be identified and gene copy number variation and stability can be monitored. The expression of genes can be used to study how FF cells adapt to changes in culture conditions, environmental stress, spore engineering. Using ESTs provides several advantages over genomic or random cDNA clones including elimination of rame, and organisation of the microarrays based on function of the gene products to facilitate
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (NOVO)
                                                                                                                                                                                                                                           The present invention describes a method for monitoring differential expression of genes in a first filamentous fungal (FF) cell relative expression of the same genes in one or more second filamentous fungal cells. The method uses fluorescence-labeled nucleic acids isolated from the cells.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          expressed sequence tag; Fusarium venenatum; Aspergillus niger Aspergillus oryzae; Trichoderma reesei; identification; recom culture condition; environmental stress; spore morphogenesis;
                                                                                                                                                                                                                                                                                                                         Claim 88; Page 2569; 3161pp; English
                                                                                                                                                                                                                                                                                                                                                           substrate
                                                                                                                                                                                                                                                                                                                                                                      Monitoring differential expression of genes in fi
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Berka RM,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Aspergillus oryzae
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         metabolic pathway engineering; catabolic pathway engineering; ss.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Multiple gene expression; filamentous fungal cell;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Aspergillus oryzae EST SEQ ID
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                                                                                                                                                         Chimeric
Chimeric
                                                                                                                                                                                                               Heterologous protein production; Thermus thermophilic bacteria; CRP binding site; catabolite repression; malate dehydrogen
                        promoter
                                                                                                                                                                                                                                                                                              E.coli mdh
                                                                                                                                                                                                                                                                                                                                    23-AUG-1993
                                                                                                                                                                                                                                                                                                                                                                                                             AAQ40461 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           analysis of the results. AAF07478 to AAF11247 represents ESTs from Fusarium venenatum; AAF11248 to AAF11853 represents ESTs from Aspergillus niger; AAF11854 to AAF14878 represents ESTs from Aspergillus oryzae; and AAF14879 to AAF15337 represents ESTs from Trichoderma reesei, which are
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 659 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         all specifically claimed in the present invention.
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                                                                                                                                                                             Escherichia coli.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TCAACATCCTCCAAGA 542
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                                                                                                                                                                                                                                                                                            promoter fused to
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                                                                                                                                                                                                                                                                                                                                (first entry)
                    /product= malate_dehydrogenase
/note= "from Thermus aquaticus
1. 285
                                                                                                286..1269
                                                                                                                   ocation/Qualifiers
                                                                                                                                                         aquaticus
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    /*tag=
                                                                                /*tag=
                                                                                                                                                                                                                                                                                                                                                                                                             DNA; 1598
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47.0%;
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                                                                                                                                                                                                                                                                                          T.aquaticus mdh coding sequence.
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Pred. No. 0.0044;
                                                                                                                                                                                                               dehydrogenase;
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cAMP receptor protein;
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Best Local S
Matches 161
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gene are claimed for expressing a polypeptide (other than E.coli
MDH) in E.coli hosts. In particular, the promoter can be used to
express polypeptides of the thermophilic bacterial genus Thermus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 1598 BP;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Claim 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              genes
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            New Escherichia coli expression vector - contg. E.co
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Similarity
                                                                                                          GCAAGCTCAAGAAGTACGAGGAGGGCTTTGAGGTAGAGAGATACTCAA 1853
                                                                                                                                                                         TCCGCGGAAGCCCGAGGCACAGGCCGAAGCGCTCTTCATAGAGTTCTTCGAGC
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                                                                                                                                                                                                                                                                                                          TGGAGCTGGAGGACTGCGCCTTCCCCCTGCTTGCGGGCCTCGAGGCCACCGACGACCCCA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                               Fig 4; 47pp; English.
                                                                                                                                                     GGATGGAGCGCCGGGACCTTTTGCAGGTAAACGGCAAGATCTTCACCGAGCAGGCCGGG
                                                                                                                                                                                                                             Atk inson
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/note= "putative"
168. 189
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /note= "from 205..210
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/note= "putative"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          2.6%;
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Best Local Similarity
Matches 222; Conserv
                                                                                                                                                                                                                                                                                               Cellulomonas fimi xylanase. Xylanase (also known as endo-1,4-beta-xylanase) hydrolyses beta-1,4-D-xylan, a component of the hemicellulose in plant cell walls, into xylo-oligosaccharides and xylose. Xylanase is used in a range of industrial processes. It is used to produce xylo-oligosaccharides from xylan from broad-leafed trees, and is used in wood-pulp bleaching to reduce the amount of chlorine required for this process. Xylo-oligosaccharides can be used as ingredients in foodstuffs and as water-retaining material in cosmetics. The chimeric xylanase of the invention does not generate xylose monomers during the hydrolysis of xylan. It is therefore useful for efficient and reliable xylo-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CDS
                                                                                                                                                                                                                                                                                                                                                                                                                                       encoding it (AAA12985). The chimeric xylanase comprises residues 1-244 of Streptomyces olivaceoviridis xylanase and residues 244-354 of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Cellulomonas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 DNA
                                                                                                                                                                                                                                                                                     xylan. It is therefore user oligosaccharide production.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Example 1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Modified xylanase gene for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (NORQ )
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1065 nucleotides
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               encoding
1009 ACCGAATACAACGGGCCGATATTCAGGAAGCTCAAGACCTTCGAGCCGAGGCACTTCCGC 1068
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SEIBUTSUKEI TOKUTEI SANGYO GIJUTSU KENKYU SUISHIN
                                                                                                              GTTACCGGCGACCACTGGATTTACGGGCCTTGACGTCAGCGATGGCAAAGCATTGCTCCTC 948
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               standard;
                                                                                                                                         CTCACTCCAGATGCGGGCAGGGTAAACCTCTGGCTCTGGGACGGGAAGGCCGAGCGTGTT
                                                                                                                                                                                                                                                                           xyLanase
                                CCCAACCGGCTCTCGGAGGCGCAGTACAAGGCGATCGCCGACAGCGAGTTCAACCTCGTC
                                                                                     1062
                                                         ATCATGACCGCCACGAGGATAGGCGAGCTCTACCTCTACGACGGCGAGCTGAAACAGGTC 1008
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       endo-1,4-beta-xylanase; xylan hydrolysis;
osaccharide production; ds.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Page 9-10;
                                                                                                                                                                                              Conservative
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/product= "Cellulomonas fimi xylanase"
/note= "No stop codon given in the spe
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Cocation/Qualifiers
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43.3%;
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Pred. No. 0.059;
0; Mismatches 291;
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RESULT 14
ABA47739
ID ABA47
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AC ABA47
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AC ABA47
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The invention relates to a spatially-addressable set of single exon nucleic acid probes for measuring gene expression in a sample derived from human breast and BT 474 cells. The method involves contacting the probes with a collection of detectably labelled nucleic acids derived from mRNA of human breast, and then measuring the label bound to each probe of the microarray. The probes are useful for verifying the expression of regions of genomic DNA predicted to encode proteins. They are useful for gene discovery, and for
                                                                                                                                                                                                                                                                                           WPI;
                                                                                                                                                                                                                                                                                                                                 Penn
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                                                                                                                                                                                                                New spatially-addressable set of single exon nucleic acid useful for measuring gene expression in sample derived frobreast, comprises number of single exon nucleic acid probe
                                                                                                                                                                                                                                                                                                                                                                                                        27-SEP-2000;
04-OCT-2000;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     04-FEB-2000;
26-MAY-2000;
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                                                                                                                                                                              Claim
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21-SEP-2000;
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30-JUN-2000;
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                                                                                                                                                                                                                                                                                                                               Hanzel DK,
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2000US-0632366.
2000US-0234687.
2000US-0236359.
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RESULT 15
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Best Local Similarity
Matches 122; Conserv
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26-MAY-2000;
30-JUN-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WO200157277-A2
      Human genome-derived
                                                               WPI; 2001-483447/52.
                                                                                                                                                                                                                                                                        21-SEP-2000;
27-SEP-2000;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Human; foetal liver;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human foetal liver single exon nucleic acid probe #13938.
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                                                                                                                                                                            (MOLE-) MOLECULAR DYNAMICS INC
                                                                                                                                                                                                                                         04-OCT-2000;
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2000US-0608408.
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2000US-0236359.
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single exon nucleic acid probes useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gene expression; single exon nucleic acid probe; ss.
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Note: The sequence data for this patent did not form part of the printed specification, but was obtained in electronic format directly
                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 1785 BP; 293 A; 622 C; 480 G; 390 T; 0 other;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The invention relates to a single exon nucleic acid probe for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 4; SEQ ID NO 13938; 639pp + sequence listing; English.
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                                      CTTGGAG 1308
                                                                                                          CCCGCGCGCGCACGGCTATAGCGAAGACTTCGCGCTCCGCGTCCTGGAGAGGACTGG 1301
                                                                                                                                                TCTCTTCCTCCGCATGGCACAGCTGAGGAATTTCAAGGGCACCTACTGCTACCTTGTGCC
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July 15, 2003, 11:46:09; Search time 4928 Seconds (without alignments) 11037.570 Million cell updates/sec
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                          REFERENCE
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SOURCE
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AR086952
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Sequence 1 :
AR086952
AR086952.1
Patent: US 5985646-A 1 16-NOV-1999;
Location/Qualifiers
                          1 (bases 1 to 1869)
Murphy,D., Reid,J. and Robertson,D.
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AR116209 Sequence E16634 Pyrococcus AP000003 Pyrococcu AE013176 Thermoana AE005114 Halobacte AC068311 Homo sapi

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Yanthomon
Thermopla
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Haloferax
Sulfolobu

AJ248288 Pyrococcu
AX041922 Sequence
Z99120 Bacillus su
AX006271 Sequence
AX431809 Sequence
AX431809 Sequence
AE009798 Pyrobacul
AP000062 Aeropyrum

AP000064 Aeropyrum AE001879 Deinococc

Thermoana

AR086952 Sequence AR095647 Sequence

Description

AJ248287 Pyrococcu

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

Minimum DB Maximum DB

seq

length: 0 length: 2000000000

Total number of hits satisfying chosen parameters;

4109280

2054640 seqs, 14551402878 residues

Scoring table:

IDENTITY_NUC Gapop 10.0 , Gapext 1.0

Title:

Perfect score:

US-09-966-803-1 1869 1 ATGACCGGCATCG

Run on: OM nucleic -

nucleic search, using sw model

GenCore version 5.1.6 Copyright (c) 1993 - 2003 Compugen Ltd

Database

GenEmbl:*

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em_htgo_mus:*
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PAT 07-SEP-2000

AL132674 Streptomy
AL359152 Streptomy
Y10980 S.gyriseus s
AE005872 Caulobact
AP000983 Sulfolobu
AL355753 Streptomy
AF429315 Homo sapi

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                                  GCGGGCAGGGTAAACCTCTGGCTCTGGGACGGGAAGGCCGAGCGTGTTGTTACCGGCGAC
                                                                                                       ATCAGCGAGCACGACTGGCTGTACCTCTGGGACGGCGAGCTTAAACCGATCTACGAGGGC
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                                                                                                         780
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		~	RESULT	
	GGAACTGA 1869	1861	Db	
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1860	AGCGCAAGCTCAAGAAGTACGAGGAGGGCTTTGAGGTAGAGAAGATACTCAAGGGGAA	1801	Db	
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1800	AGCGTCCGCGGAAGCCCGAGGCACAGGCCGGAAGCGCTACAGGCTTCTTCATAGAGTTCTTC	1741	ΔĀ	
1740	CTCAAGGACATGGGCAAGGAAGCCTACATAGCGATATTCAAGGGCGGCCCCACGGCCAC	1681	망	
1740	CTCAAGGACATGGGCAAGGAAGCCTACATAGCGATATTCAAGCGCGGGCGCCCCACGGCCAC	1681	Qγ	
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1680	ATCCACTCGCTTGAGGACTACCGCTGTCCGCTCGACCAGAGCCTTATGTTCTACAACGTG	1621	Qγ	
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1380	ATAATGAACGCATCGAGGAGTTCTTCAAGCTCGAACCGCAGGCCGACAGGGAGGCGCGTT	1321	Db .	
1380	- i-3	1321	Qy	
1320	TATAGCGAAGACTTCGCGCTCCGCGTCCTGGAGAGGACTTGGAGGACTTTGAGGAC	1261	뮹	
1320	ATAGCGAAGACTTCGCGCTCCGCGTCCTGGAGAGGACTGGCCTTGGAGGACTTTGAGG	1261	Q	
1260	CAGCTGATGGCGAGCAAGGGCTACTACTGCTGCTTCGTGAACCCGCGCGGCAGCGACGGC	1201	Вb	
1260	CAGCTGATGGCGAGCAAGGGCTACTACTGCTGCTTCGTGAACCCGCGCGCG	1201	Οy	
1200	ATAGTCTTCGTCCACGGCGGCCGAAGGGCATGTACGGACACCGCTTCGTCTACGAGATG	1141	Db	
1200	ATAGTCTTCGTCCACGGGGGCCGAAGGGCATGTACGGÄCACCGCTTCGTCTACGAGATG	1141	Qy	
1140	GACCTCGAGATAGACGGCTGGTACCTCAGGCCGGAGGTTAAAGAGGAGAAGGCCCCGGTG	1081	В	
1140	ACCTCGAGATAGACGGCTGGTACCTCAGGCCGGAGGTTAAAGAGGAGAAGGCCCCCGG	1081	Ωy	
1080	GGCCGATATTCAGGAAGCTCAAGACCTTCGAGCCGAGGCACTTCCGCTTCAAGAGCAAA	1021	Db	
1080	္မင္မ	1021	Qy	
1020	ACGAGGATAGGCGAGCTCTACCTCTACGACGGCGAGCTGAAACAGGTCACCGAATACAAC	961	B	
1020	ACGAGGATAGGCGAGCTCTACCTCTACCGACGGCGAGCTGAAACAGGTCACCGAATACAAC	961	Qy	

RESULT 2
AR095647
LOCUS
DEFINITION
ACCESSION
VERSION
VERSION
KEYWORDS
SOURCE

AR095647 1869 bp Sequence 1 from patent US 6004796. ION AR095647 AR095647.1 GI:10023708

DNA

linear

PAT 08-SEP-2000

Unknown

Qy 781 CGGCTCGACGTCTGGGAAGCCAAGCTCACGAAAGGATCTACTTCCTCACATCACAAT 840	Qy 721 ATCAGCGAGCACGACTGGCTGTACCTCTGGGACGGCGAGCTTAAACCGATCTACGAGGGC 780	Qy 601 TACGACATAGTCCTATGGAAGGACGGGAGGAAGAAGCTCTTCGAGAGGGTCTCCCTTC 660	Qy 541 GATGCGATAGTTGTGAACGTCCCGCACCGCAGGGGAGCAAGCCTGCCCTGTTCAAGTTC 600	QY 481 GCCGAGGAGATAATCGAGCAGTTCGAGAAGCCGAGGTTTTCGAGTGGCCTCTGGCACGGC 540		QY 361 GTCGGCTTCAAGAGGAGGACGATGAGGACTTCGTCTTTGACGACGACGTCCCGGTCTGG 420	QY 301 CTCTCAACTAAAAACGTCCGCTCGATGCAGTGGAACGACGATTCAAGGAGACTCTTAGTT 360	QY 241 GAGAAGAAGACCGAGATATGGGTGGCCGATATCCAGACCCTGAGCGCCAAGAAAGTC 300 	QY 181 GCCTCAATGCCGAGGATTTCGCCAGACGGCAGAAGCTCGCCTTCACCTGCTTTAACGAG 240	QY 121 TACGAGAGCACGGTTGTTGTTGAAGACCTTGAAACGGGCTCAAGGCGCTTCATCGAGAAC 180	QY 61 AGGATACGGGGAAACTTAATCGCGTACACCCTGACGAAGACGAAGAAGAAGAAGAAGAAG 120	QY 1 ATGACCGGCATCGAATGGAACCACGAGACCTTTTCTAAGTTCGCCTACCTGGGCGACCCG 60	Ouery Match 100.0%; Score 1869; DB 6; Length 1869; Best Local Similarity 100.0%; Pred. No. 0; Matches 1869; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	Source 1.1869 /organism="unknown" BASE COUNT 476 a 486 c 567 g 340 t ORIGIN	E Amidase NAL Patent:	Unknown. Unclassified. 1 (bases 1 to 1869)
UY 1801 GGGAACTGA 1869 Db 1861 GGGAACTGA 1869 RESULT 3	1801	Qy 1681 CTCAAGGACATGGGCAAGGAAGCCTACATAGCGATATTCAAGCGGGCGCCCACGGCCAC 1740	Qy 1621 ATCCACTCGCTTGAGGACTACCGCTGTCCGCTCGACGAGAGCCTTATGTTCTACAACGTG 1680	QY 1561 AACTTCAGGAAGCTCAGCCCGCTGTTCTACGCTCAGAACGTGAAGGCGCCGATACTCCTA 1620	Qy 1501 TCGGACATAGGGCTCTGGTACGACGTCGAGGTCATCGGGCCAAATCCGTTAGAGAACGAG 1560	QY 1441 CTCTTCAAGGCAGGAATAAGCGAGAACGGCATAAGCTACTGGCTCACCAGCTACGCCTTC 1500	QY 1381 GGAATAACGGCGATAAGCTACGGCGCTTCATGACCAACTGGCCTTGACTCAGAGCGAC 1440	OY 1321 ATAATGAACGGCATCGAGGAGTTCTTCAAGCTCGAACCGCAGGCCGACAGGGAGCGCGTT 1380	1261 1261	OY 1201 CAGCTGATGGCGAGCAAGGGCTACTACTGCTTGGTGAACCCGCGCGGCAGCGACGGC 1260		OY 1081 GACCTCGAGATAGACGGCTGGTACCTCAGGCCGGAGGTTAAAGAGGAGAAAGGCCCCGGTG 1140	QY 1021 GGGCCGATATTCAGGAAGCTCAAGACCTTCGAGGCACTTCCGCCTTCAAGAGCAAA 1080	QY 961 ACGAGGATAGGCGAGCTCTACCTCTACGACGGCGAGCTGAAACAGGTCACCGAATACAAC 1020	QY 901 CACTGGATTTACGGGCTTGACGTCAGCGATGGCAAAGCATTGCTCCTCATCATGACCGCC 960	Db 841 GCGGGCAGGGTAAACCTCTGGCTCTGGGACGGGAAGGCCGAGCGTGTTGTTACCGGCGAC 900

Qy	Qy	Qy VQ	Qy	D Qy	Ф	Qy	Qy	Qy Db	Qу	Qy Db	Qy Db	Db VQ	Query Match Best Local Matches 186	SOUICE BASE COUNT ORIGIN	AUTHORS TITLE JOURNAL FEATURES	SOURCE	DEFINITION ACCESSION VERSION KEYWORDS	AR136115 LOCUS
721 ATCAGCGAGCACGACTGGCTGTACCTCTGGGACGGCGAGCTTAAACCGATCTACGAGGGC 780	661 GAGGCGGTTGACTCCGACGGAAAGAAAAAAAAAAAAAAA	601 TACGACATAGTCCTATGGAAGGACĞGGGAGGAAGAGAAGCTCTTCGAGAGGGTCTCCTTC 660 	541 GATGCGATAGTTGTGAACGTCCCGCACCGCGAGGGGAGCCAAGCCTGCCCTGTTCAAGTTC 600	481 GCCGAGGAGATAATCGAGCAGTTCGAGAAGCCGAGGTTTTCGAGTGGCCTCTGGCACGGC 540	421 TTCGACAATATGGGATTCTTTGATGGAGAGAAGACGACGTTCTGGGGTTCTTGACACTGAG 480	361 GTCGGCTTCAAGAGGAGGACGATGAGACCTTCGTCTTTGACGACGACGTCCCGGTCTGG 420	301 CTCTCAACTAAAAAGGTCCGCTCGATGCAGTGGAACGACGACTTCAAGGAGACTCTTAGTT 360 	241 GAGAAGAAGGAGACCGAGATATGGGTGGCCGATATCCAGACCCTGAGCGCCAAGAAAGTC 300	181 GCCTCAATGCCGAGGATTTCGCCAGACGGCAGAAAGCTCGCCTTCACCTGCTTTAACGAG 240	121 TACGAGAGCACGGTTGTTGTTGAAGACCTTGAAACGGGCTCAAGGCGCTTCATCGAGAAC 180 	61 AGGATACGGGGAAACTTAATCGCGTACACCCTGACGAAGGCCAACATGAAGGACAACAAG 120 	1 ATGACCGGCATCGAATGGAACCACGAGACCTTTTCTAAGTTCGCCTACCTGGGCGACCCG 60	/ Match 100.0%; Score 1869; DB 6; Length 1869; Local Similarity 100.0%; Pred. No. 0; ndels 0; Gaps 0; length 1869; Conservative 0; Mismatches 0; Indels 0; Gaps 0;	е. 476 а	Murphy, D., Reid AMIDASE Patent: US 6136	Unknown. d Unknown. Unclassifi	Sequence 1 from patent US 6136583. AR136115 AR136115.1 GI:14476787	AR136115 . 1869 bp DNA linear PAT 16-JUN-2001
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SOURCE
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Pyrococcus abyssi
Pyrococcus abyssi
Archaea; Euryarchaeota; Thermococcales;
Thermococcaceae; Pyrococcus.
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SIEBALANIECEVYDTKDYGDHTLFYGKVLAYTYKEEAFEGGKPNLKFNFLAHYSWSE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    complement(5709.
/note="PAB1557"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /db_xref="Sptrembl:Q9uzA9"
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ifpyfdsliyyrkmaellgfptslckkakvykyggrvnegnyymkltyteygfpekyl
eeaieqvyedktiviplgtekylslypfreqlsftnflalkygokrkaahfintdly
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GKETATELTKEMKNINVRSSLEGLIGMLQKGKGFQVYVHGKEEKREETKE"
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GIDVAIPEIRNDPIAREIVKILFDLRRANYSQITRELKGRRGKASRNTVRAKLNELKN
LGYVVEVPGERGKYYTLSKDVVKRWLDLIGIPIKLEHIKDYLR"
product-"ANION TRANSPORTING ATPASE"
                                                    /note="PAB1555"
codon ~+-
                                                                                                                            VKEFISGFSKVKNVKHVALVPKTNVIYVFFKPEPESIEDDVRNIIRFVKRMANR"
                                                                                                                                                                                                                                                                                                                                                                                                                                                        FVTFQDKIYRAE"
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/protein_id="CAB50151.1
/db_xref="GI:5458664"
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                        transl_table=11
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/translation="MCLAIPGRVVEIRDNVGIVDFGGVKREVRLDLLSDVKVGDYVIV
HTGFAIEKLDEERAKEILEAMDEVFSILGGE"
                                                                                                                                                                                                            'db_xref="SPTREMBL:Q9UZA7"
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/protein_id="CAB50150.
/db_xref="GI:5458663"
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'db_xref="GI:5458662"
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/protein_id="CAB50147.1"
/db_xref="GI:5458660"
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transl_table=11
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protein_id="CAB50148.]
db_xref="GI:5458661"
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61 AGGATACGGGGAAACTTAATCGCGTACACCCTGACGAAGGCCAACATGAAGGACAACAAG 120
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                                                            ATGACCGGCATCGAATGGAACCACGAGACCTTTTCTAAGTTCGCCTACCTGGGCGACCCG 60
                                                                                                                                         Conservative
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RVDVERETLVEYPRLVKDYGSFKLEVEPGEIRKGEVIGIVGPNGIGKTTFVKMLAGVE
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NYKPIIQEASCTGCGICVHKCPFNAISIVNLEEQLLDEDCVHRYCVNAFYLYRLPIVKD 
GMVVGIVGPNGTKTTAVKILAGQLIPNLCEDNDSWDNVIRAFRGNELQNYFERLKNG 
EIRPVVKPQYVDLLERAVKGKVRELLKKVDEVGKFEEVVKELELENVLDRELHQLSGG 
ELQRVAIAAALLRKAHFYFFDEPSSYLDIRGRLKVARVIRRLANEGKAVLVVEHDLAV
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MTASLWVAKIQRPSGFWKWAVLIPALFLWVTVTSALIWFLIIVGKSSIWVSLITIVGL
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LALMSSVRYDGKSIQWIAGKLMSKRTSMAFELYVWFALILVIAAFAAVIAGTFVKTPG
AATASILFLLIAVLLGWLLYKVQINFKVGTIIGIILLIIAIYIGFKFPLVASAKAWYI
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VINLEKYFEVLRYSPGIEEYATLEAIREILVKGDEWDVIVFDTPPTGLTLRVLALPRI
SLVWTEKLIDIRKKILERRRAITKIQGEQKFVIDGEEIKLPTREEEDAVMRELKAYRD
                                                                                                                                                                                                               /trans1_table=11
/product="hypothetical protein"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      EPTEGKVEWDLTVAYKPQYIKAEYEGTVYELLSKIDSSKLNSNFYKTELLKPLGIIDL
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FSAHVVGGKPSPFWPTIPLVIACGALSGFHSLVGSGTSSKQLDNELHGLLVGYGGMFT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /product="CARBON STARVATION /protein_id="CAB50154.1" /db_xref="GI:5458667"
                                                                                                                                                                                                                                                                                                                                                                                                           /product-"TRANSLATION
/protein_id-"CAB50156.
/db_xref-"GI:5458669"
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/translation="MNSTVVILAAAIIYVGLYFTYGKGLQNKVVRADPNRPTPAHRLY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /drnvedlsggelorvataatllrdadiylldepsayldveqrlavsrairhlmekne
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/protein_id="CAB50155.1"
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                                                                                                                                                                                                                                                                                                                                  LRVAVEVSRLPKDVLIEMEAIAYKE
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|GDIKEQTKRVIENIKAILEEAGASLNDVVKVTVYLKDLNDFAKMNEVYSEYFGESKP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       codon_start=1
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'transl_table=11
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                                                                                                                                                                                                                                                                                                                                                                                           _xref="SPTREMBL:Q9UZA3"
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                                                                                                                                                       57.7%;
74.9%;
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                                                                                                                                       Score 1078.2; DB 1;
Pred. No. 2.6e-201;
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CCGGTAATAGTCTTCGTCCACGGTGGGCCCAAGGGAATGTACGGTTACTACTTCAAGTAC
                                                  CCGGTGATAGTCTTCGTCCACGGCGGGCCGAAGGGCATGTACGGACACCGCTTCGTCTAC 1194
                                                                                                                                                                                                                                                AACGGGCCGATATTCAGGAAGCTCAAGACCTTCGAGCCGAGGCACTTCCGCTTCAAGAGC
                                                                                                                                                                                                                                                                                                                         GCCACTAGGTTGAGGGAGCTCTACATCTGGGACGGGAGGAGGGGAACTAACGGATTAC
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                                                                                                                                              Forterre,P., Thierry,J.C., Prieur,D., Dietrich,J., Lecompte,O., Querellou,J., Weissenbach,J., Saurin,W., Heilig,R., Flament,D., Raffin,J.P., Henneke,G., Gueguen,Y. and Rolland,J.L. Genome sequence and polypeptides of pyrococcus _1(abissy), fragment
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    GATGCGGGCAGGGTAAACCTCTGGCTCTGGGAACGGGAAGGCCGAGCGTGTTGTTACCGGC
                                                                                                                                                                                                                   CACGCTATAGACTCTGACGGAAAGAATATCCTACTCTACGGAAAGCCCCGAGAAGAAGTAC
                                                                                                                                                                                                                                            GCCGAGGAGGTTATAGAGCAGTTCGAGAAGCCAAGGTTTTCGAGCGGAGTTTTGGCACGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GTCGGCTTCAAGAGGAGGACGATGAGGACTTCGTCTTTGACGACGACGACGTCCCGGTCTGG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GAGAAGAAGGAGACCGAGATATGGGTGGCCGATATCCAGACCCTGAGCGCCAAGAAAGTC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AGGATAAGGGGAAGCACAATAGCGTACGTTCTAACCAAGGCGAACCTTGACAACAACAAG
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                                                                                                                                                                      ATCAGCGAGCACGACTGGCTGTACCTCTGGGACGGCGAGCTTAA---ACCGATCTACGAG
                                                                                                                                                                                                                                                                                                                                                                                          GATTCGATAGTTGTGAACGTCCCGTACAG----GGACACCATACCAAGGTACTTCAAGTAC
                                                                                                                                                                                                                                                                                                                                                                                                                                   GATGCGATAGTTGTGAACGTCCCGCACCGCGAGGGGAGCAAGCCTGCCCTGTTCAAGTTC
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GCCTCAATGCCGAGGATTTCGCCAGACGGCAGAAAGCTCGCCTTCACCTGCTTTAACGAG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TACGAGAGCACGGTTGTTGTTGAAGACCTTGAAACGGGCTCAAGGCGCTTCATCGAGAAC
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                                                                   ATAGGCTTCAAGAGGAGGACGATGAAGATTTCATATTCGAGGATGACGTTCCAGCTTGG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  TACGAGAGCACGATAGTTCTCGAGAACCTCGAAGATGGGAGCAAGAGGTTCATAGAAGAC
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74.98;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 1078.2; DB 6
Pred. No. 2.6e-201;
0; Mismatches 458;
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eq 001,

eq 813,

eq 814,

eq 815, f

eq 815, f

eq 816, f

eq 817, f
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0.600.001
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360 205886 300

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240

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180

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120 206126 60

897

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205409

777

720

205469

660

205529

600

205589

540

205646

480

/product="433aa long hypothetical		RESULT 6 .	RES
_			
842 percent identity: 49.869 in 397aa; 221 percent identity: 50.773 in 404aa"		204331 GGTGAGAACAAGTGA	당 .
		V 1855 GGGAATGGGAACTGA 1869	Q V
/gene="PH0318" 13632664	CDS		Db -
/map="287001-544000 nt. position" 13632664	gene	y 1795 TTCTTCGAGCGCAAGCTCAAGAAGTACGAGGAGGGCTTTGAGGTAGAGAAGATACTCAAG 1854	Q
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e 1257000 /organism≖"Pyrococcus horikoshii"	source	Y 1735 GGCCACAGCGTCCGCGGAAGCCCGAGGCACAGGCCGAAGCGCTACAGGCTCTTCATAGAG 1794	γQ
<pre>URL: http://www.bio.nite.go.jp/. Location/Qualifiers</pre>	FEATURES	204511 CACGTCCTGAAAGATTTAGGCAAAGAAGTTTACATAGCGATATTCAAGAGGGGAGCTCAT	문
information are available at W.W.W. site of Biotechnology Center,		Y 1675 AACGTGCTCAAGGACATGGGCAAGGAAGCCTACATAGCGATATTCAAGCGCGGCGCCCAC 1734	ρ
E-mail address for comments and questions: genomeoT3@nite.go.jp		b 204571 TTGCTAATCCACAGCCTTGAAGATTATCGCTGTCCATTGGATCAGAGCTTGATGTTCTAC 204512	Дb
		1615 CTCCTAATCCACTCGCTTGAGGACTAC	Qy
and stop codon are defined as CDS		204631	DЬ
Evaluation, 2-49-10 Nishihara, Shibuya, Tokyo 151-0066, Japan. All the sequence with length 100 codons or more between ATG or GTG		y 1555 aacgagaacttcaggaagctcagcccgctgttctacgctcagaacgtgaaggcgccggata 1614	9
CA, USA. The other authors are at the National Institute of Technology and		204691 GCGTTCTC	망
Japan. Shizuwa, H. is at the California Institute of Technology, Pasadena,		Y 1495 GCCTTCTCGGACATAGGGCTCTGGTACGACGTCGAGGTCATCGGGCCAAATCCGTTAGAG 1554	γ
rokosuxa, kanagawa 23/-0001, Japan. Masuchi, Y. is at the University of Tokyo, Meguro, Tokyo 153-0041,		204 / ST	Ę
Horikoshi, K. is at the Oran Marine Science and Technology Center,			7 5
Robb, T. F. is at the Center of Marine Biotechnology, University of		つな 血ぐ フェンフェン・コンフェン・コンフィン・コンフィン・コンフィンフィンフィンフィンフィンフィンフィンフィンフィンフィンフィンフィンフィン	Ş
Institute of Bioscience and Human-Technology, Tsukuba, Ibaraki 305-0046, Japan.			망
AB009475-AB009484: submitted (10-DEC-1997) Kawarabayasi, Y. is officially affiliated with the National		Y 1375 CGCGTTGGAATAACGGGCATAAGCTACGGCGGCTTCATGACCAACTGGGCCTTGACTCAG 1434	γQ
g1:3130705, g1:3130737, g1:3130785, g1:3130824, g1:3130828.		D 204871 CAGGATATACTGAATAGAAGAGTTCTTCAAGCTTGAACCGCAAGCGGACAGGGAG 204812	ДЬ
On or before Jul 28, 1998 this sequence version replaced	COMMENT	1315 GAGGACATAATGAACGGCATCGAGGAGTTCTTCAAGCTCGAACCGCAGGCC	Qy
(E-mail:genomeOT3enite.go.jp, Tel:+81-3-3481-8951,		204931 AACGGTTACAGCGAGGACTTTGCACTTAGAGTCCTCGAGAGGACTGGCCTA	ДЬ
Technology and Evaluation, Biotechnology Center; 2Chome 49-10		Y 1255 GACGGCTATAGCGAAGACTTCGCGCTCCGCGTCCTGGAGAGGACTGGCTTGGAGGACTTT 1314	Qy
Direct Submission Submitted (11-JUN-1998) Yutaka Kawarabayasi, National Institute of	TITLE JOURNAL	204991	D
<pre>2 (bases 1 to 257000) Tanaka,T., Kawarabayasi,Y. and Kikuchi,H.</pre>	REFERENCE	1195 GAGATGCAGCTGATGGCGAGCAAGGGCTACTGCTGCTTCGTGAACCCGCGCGGCAGC	δ.
DNA RES. 5 (2), 55=/6 (1998) 98344137	MEDLINE	203031 CCGGTAATAGTCTTCGTCCACGGTGGGCCCAAGGGAATGTACGGTTACTTAC	5
Complete sequence and gene organization of the genome of a hyper-thermophilic archaebacterium, Pyrococcus horikoshii OT3	TITLE	1133 CCGSTGATAGTCTTCGTCACGGCGGACGGCGATGTACGGACACCGCTTCGTCTAC	2 5
Masuchi, Y., Shizuya, H. and Kikuchi, H.		1110 0000000000000000000000000000000000	? ;
Funahashi, T., Tanaka, T., Kudoh, Y., Yamazaki, J., Kushida, N.,			₹ .
Yamamoto,S., Sekine,M., Baba,S., Kosugi,H., Hosoyama,A., Nagai,Y., Sakai,M., Oqura,K., Otuka,R., Nakazawa,H., Takamiya,M., Ohfuku,Y.,		Y 1078 AAAGACCTCGAGATAGACGGCTGGTACCTCAGGCCGGAGGTTAAAGAGGAGAAGGCC 1134	Ş
Kawarabayasi, Y., Sawada, M., Horikawa, H., Haikawa, Y., Hino, Y.,	AUTHORS	205171 AACGGTCTGATATTCAGCAAGCTCAAAACCTTCGAGCCTAAGCACTTCAAG	망
Thermococcaceae; Pyrococcus.	ממקקפקערק	Y 1018 AACGGCCGATATTCAGGAAGCTCAAGACCTTCGAGCCGAGGCACTTCCGCTTCAAGAGC 1077	Qγ
Pyrococcus horikoshii Archaea: "Investable of the Thermonocca of the T	ORGANISM	205231 GCCACTAGGTTGAGGGAGCTCTACATCTGGGACGGCGAGGAGAGGCAACTAACGGATTAC 205172	Ъ
Pyrococcus horikoshii (strain:OT3) DNA.	KEYWORDS	• 958	Qγ
AP000002 AB009475 AB009476 AB009477 AB009478 AB009479 AB009480 AB009481 AB009482 AB009483 AB009484 BA000001 AP000002.1 GI.3236139	ACCESSION VERSION	205288	DЬ
Pyrococcus northosnii OT3 genomic DNA, 28/001-544000 nt. position (2/7).	DEFINITION	898	Qγ
AP000002 257000 bp DNA linear BCT 06-APR-2000	AP000002 LOCUS		Db

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                                         /gene="PH0323"
4856. .6172
                                                                                                                                             NVFLFLYEPLRTFMTNMENLGINVDEYLGENLMIFDVFGSMNKIERKIKGVYKLSGYL
DDVVFYSKLKEMAIKTLKTINIANFWFFTYLSSGICKLFSNPLLTYKLIWALREEILK
GYRPKTIITYSQLECPILEETVYLASDIVLETRIINGKKVGIITKGPNENLIFELFKE
                                                                                                                                                                                                                                                                                                                                                                                                                                   complement(4039. .4698)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /translation="MVISMKSEKPLYGIIMGSDSDLPYMKEAARILEEEGYPYEITII
SAHRTPERAYEYAKKAEERGIEVIIAGAGGAAHLPGIIASLTVLPVIGVPIKSKALNG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /note="similar to owl:SSOUREK percent identity: 68.000 in 150aa; PIR:S75001 percent identity: 60.694 in 173aa; owl:BAPURKE1 percent identity: 62.329 in 146aa"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        complement(4039. .4698)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /translation="MISWEIEELDREIGKIKKHSLILIHEEDASSRGKDILFYILSRK
LKSDNLVGMFSISYPLQLIIRILSRFGVDVIKYLENHRLAIVDTFGSFHGIKATMPGV
WYLEGMLSSETLPIKYAKAVEDHKKVWMDLKLFEGRELYGFALSMSGYLEVFTPEETL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /product="253aa long hypothetical protein"
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EKAKRLEEMGWERYLSE"
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/gene="PH0320"
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                                                                                                                                                                                                                                                                 /transl_table=11
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RLFPMLIPAATHVIKAKVSGYSPRFRGLVKALSVPNATVRLFGKPEAYVGRRLGIALA
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TKAIMSSSGKGSYFVKGPEDIPKAWEEAKTKARGSAEKIIVEEHIDFDVEVTELAVRH
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VVAVDRYANAPAMQVAHRSYVGNMMDKDFLWSVVEREKPDAIIPEIEAINLDALFEFE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /gene="PH0322"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         [KRELLVIKTPKPIEELVRFEYEFKGNEPKLRRVD"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                RYLETSAEVRYGHPAYKKYPRGTNFWLWEGVKDKRVLLSVYRRADYVLKTRSSLGENG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /codon_start=1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           complement (1645.
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/protein_id="BAA29392.1"
                                                                                                                                                                                                                                translation="MGIIEELVSSIPEGGILAIIQKELESEGDRFGLLVLKHLLENEN"
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                                                                                                                                                                                                                                                                                                                                                                                                              /gene="PH0322
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/db_xref="GI:3256711"
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/product=#177aa long hypothetical
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/protein_id="BAA29393.1"
/db_xref="GI:3256710"
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/transl_table=11
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GCCTCAATGCCGAGGATTTCGCCAGACGGCAGAAAGCTCGCCTTCACCTGCTTTAACGAG
                                                                                                                TACGAGAGCACGGTTGTTGTTGAAGACCTTGAAACGGGCTCAAGGCGCTTCATCGAGAAC
                                                           TATGAGAACACTATAGTTATAGAGAATCTTGAAGATGGGAGCAGGAAGTTCATAGAAGAT 246213
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Similarity
      Conservative
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ILFKVSPEKAKEELYEKLVEGGLPEEIAREVSEKLLEKEEAIIKLLVPEEEEENEFRAA
LYTGIAYLFGVAFPVTPYFFASTSLRALPISVTLAGLALAIVATSISLISGISIRKKV
                                                                                                                                                                                                                                                                                                   EAKHAKFWHDFLVRRGVKPKKPRIKKLIFFTVKLLRKLFGPAMVVSMLEMGENSAIQK
YFKFFGEFSDEITEEEFEGLRGIIIDELEHEKFFSESKKLFHVENIRDFVLGMNDGLV
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/transl_table=11
/product=364aa long hypothetical protein"
/protein_id="BAA29399.1"
/db_xref="GI:3256716"
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7392. .8486
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/db_xref="GI:3256715"
/translation="MIYMIDREEILSILEKYDKDKITIGVIGSHSALDIADGAKEEGF
PVLVVAQRGRHRTYAKXFKLRKTKDNLTKGFIDEVIILDKFAQIIEIQEELIKRNVIF
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6174. .7325
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GDVGPTTGGMGSYSCSNHLLPFTTEGDFERALKTLEETIEAMRKEGYPYKGILYGQFM
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GLAKETINVEDVIKFARKWGIELAFIGÞEAÞLEAGIVNALEEEGIPAVGÞTREAARLET
NKAWAREFMERNNIPGRKMFRIFDDVQEMRKWIDEYGKÞVVVKÞLGLTGGKGVKVVGY
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motif-prokaryotic membrane lipoprotein lipid attachment
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/gene="PH0325"
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                                   AACGGGCCGATATTCAGGAAGCTCAAGACCTTCGAGCCGAGGCACTTCCGCTTCAAGAGC
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                                                                               Pyrococcus furiosus DSM 3638.
Pyrococcus furiosus DSM 3638
Archaea; Euryarchaeota; Thermococci; Thermococcales;
                                                                                                                                                                                                  AE010156 13354
Pyrococcus furiosus DSM 3638,
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AE010156.1 GI:18
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CTCCTAATCCACTCGCTTGAGGACTACCGCTGTCCGCTCGACCAGAGCCTTATGTTCTAC
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                                                                                                                                                    GI:18892257
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, section 31 of 173 of the complete
                               Cherry, J.L., Gonzalez, J.M.,
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and
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PUBMED REFERENCE REFERENCE JOURNAL MEDLINE JOURNAL MEDLINE TITLE AUTHORS AUTHORS PUBMED 2 (bases 1 to 13354)
Robb,F.T., Maeder,D.L., Brown,J.R., DiRuggiero,J.,
Yeh,R.K., Weiss,R.B. and Dunn,D.M.
Genomic sequence of hyperthermophile, Pyrococcus fu
implications for physiology and enzymology
Meth. Enzymol. 330, 134-157 (2001) Thermococcacéae; Pyrococcus.

1 (bases 1 to 13354)

Maeder, D.L., Weiss, R.B., Dunn, D.M., Cherry, J.L., Gonzal
DiRuggiero, J. and Robb, F.T.

Divergence of the hyperthermophilic archaea Pyrococcus
P. horikoshii inferred from complete genomic sequences
Genetics 152 (4), 1299-1305 (1999) 3 (bases 1 to 13354)
Weiss, R.B., Dunn, D.M. 21079003 11210495 Dunn, D.M., Robb, F.T. and Brown, J furiosus: Stump, M.D.,

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REFERENCE
AUTHORS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            4 (bases 1 to 13354)
Weiss, R.B.
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Unpublished
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TGVELSGLOERLKDBISTYSKGMTRKLLLARALMVEEKLAILDEPASGLDIINAYSIR
                            complement(3307.
                                                      EVFMSIVGGKKVE"
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                                                                                                                                                                                                                                                                                                                                                  /note="Function Code: 15.2 Other Categories: Drug
analog sensitivity"
                                                                                                                                                                                                                                                                                                                                                                                                                             complement(2573. .3442)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    complement(2573. .3442)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      /transl_table=11
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          complement(1303. .2580)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             complement(1174. .1251)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VVINGKKYAVRÓLPTGFMQTKARLLVGAGVLVDÞEVFFYELEHLKDENVAERVGIDYR
CAIIEBKHKEMDRKNDYLHGTIGTTGSGCGFANADRVHRVAKQAKDIKELEFYLTDVA
AEVNDALDESALVIJVEGTOGEFLSIKYGTFFFYTSKDTTASVASDVGIPTRVDDV
VVFKSFPTRVGAGPFPTEMPMEEADRUGLIEFGTVTGRRRVGWFDFEMARYAARING
VVFKSFPTRVGAGPFFTEMPMEEADRUGLIEFGTVTGRRRVGWFDFEMARYAARING
ATMLAVTMLDKYDKEAFGITDYDKLPRKAKEFIEEIEERVGVPVGLIKTGFELEHIID
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     LGILSAVTLEVTAKEETTEKLLTAKLREMRKKE"
                                                                                                                                                                                                                                                                                                                                                                                                                                                         /gene-"PF0310"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SSAQVSITLEELGLKITPLGATLFLIIFLTMVFTLSFAMLLAVFAEDIKTANTVVI
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RRIEGDPEAILKPIDAKSYTVIKGRIVEIPPSVVSNIIASOSPSMPLVIFIMIMLVAO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     complement(1303. .2580)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    /product="adenylosuccinate synthetase"
/protein_id="AAL80432.1"
/db_xref="GI:18892258"
                                                                                                                                                                                                                                                  omolog drrA"
                                                                                                                                                                                                                                                                                                                                                                                                        'gene="PF0310"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       \GIMPLAFPTFILMFADVNTLPTVLKYLLLGIPFSHPILASRAMLMEEYSTMYVSAVY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /SAGSMAMEKENKTLETLLTLPVKRITIVAGKMYGTAIIGIIAAISYMIGMRNYLGKL
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                                                                                                                                                                                                                                                                       product="daunorubicin resistance ATP-binding protein
                                                                                                                                                                                                                                                                                                   'transl_table=11
                                                                                                                                                                                                                                                                                                                                codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'codon_start-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /gene="PF0309"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            note="trna Glu anticodon"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /product="tRNA-Glu"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         codon_start=1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           /db_xref="taxon:186497"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     /organism-"Pyrococcus furiosus DSM 3638"
/strain="DSM 3638"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     note="Function
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       transl_table=11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               note-"Function Code:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'gene="PF0308"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             translation="MPSVIVVGGQWGDEGKGSIIAYLALHDEPEIIARGGVGTNAGHS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              *PF0308
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Code: 14.6 Transport
                            .3657)
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                                      SKEKVIGSREVAEMALRGKSLMLIIGLGRHGLPKEVFEISKYHLDITDGREISLETCT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               complement(5504:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /note="small nucleolar RNA, modification of rRNA"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             EEILNVLGMFYSVGLNEVELAS IMEILGEKKLAKELLAHDPVDPIAVTEAMLKLAKKT
GVKRIHFHTYGYYLALTEYKGEHVRDALLFAALAAAKAMKGNITSLEEIREATSVPV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     complement(3724.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         /gene="PF0312"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            complement(5145.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 fseviknvqlatlsglqaltkenykepfetyksnlevlneretpvhlefaftpdekyr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WGWNELRMGGQAG IMANLLGGVYGVPVIVHVPQLSRLQANLFLLGGPIYVPTLENGEVK
LIHPKEFSGDEENCIHYIYEFPRGFRVFEFEAPRENRFIGSADDYNTTLFIREEFRES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GAMLVTLGVMEVRK"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /translation="mmkmikkliggiiyttgfiltvirppvDrvacmttpggevcegi
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   complement(3307. .3657)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  codon_start=
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /product="signal sequence peptidase
/protein_id="AAL80437.1"
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/protein.id="AAL80456.1"
/db_xref="G1:18892562"
/translation="MPTWEELYKNAIEKAIKSVPKVKGVLLGYNTNIDAIKYLDSKDL
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/protein_id="AAL80435.
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TACGACATAGTCCTATGGAAGGACGGGGGAGGAAGGAGCTCTTCGAGAGAGGGTCTCCTTC
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                                              GACAAAATTGTTGTGAATGTTCCCCATAGAGA - - - GATAATCCCACAATACTTTAAGTTC
                                                                GATGCGATAGTTGTGAACGTCCCGCGACCGCGAGGGGAGCAAGCCTGCCCTGTTCAAGTTC
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/translation="MKDDIVES/ETIVRKGMIEEAIKIVENLQENFDKVIALCKIAEL/
TRDESFIEDAIYELKKIKDHDNKAIGYGEVAKVYALLGYEESSLELFEEAVKLIKNLN
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SGDALDSENALKFYEMAQDIYKNLKLGQREGIIEKKIELTRILMHTSVPDIRKLAYEG
RFIQALHEIEKRFGGNNVIPLLELTAMAYKTNVFERLKLKKEITMEKLSASKLSDEEKF
KVVQLLLEIDDTLKAYEIAITLESQELKEKALVLIGLKMIDEGEVRFVEEKIFPLLSD
EKREEFINFLKNLPIA"
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/db_xref="GI:18892267"
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/protein_id="AAL80440.
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               TACAACGTGCTCAAGGACATGGGCCAAGGAAGCCTACATAGCGATATTCAAGCGCGGCGCC
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    TATCACGTGCTTAAGGATCTAGGAAAGGAAGCTTACATAGCTATATTCAAGAGGGGAGCT
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Bacteria; Firmicutes; Clostridia; Thermoanaerobacteriales;
Thermoanaerobacteriaceae; Thermoanaerobacter.
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Direct Submission
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                                                                                                         /note-Best Blastp hit gi|2496187|sp|058926|YF31_METJA HYPOPHETICAL PROTEIN MJI531 gi|2129334|pir||B64491 type I restriction enzyme CfrI specificity subunit homolog-Methanococcus jannaschii gi|1592162|gb|AAB99552.1| '(U67594) type I restriction-modification enzyme, S subunit, putative [Methanococcus jannaschii]', score 186,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Xue, Y., Xu, Y., Lai, X., Huang, L.,
                                                                                                                                                                                                                                          complement(77. .1273)
/gene="HsdS"
/product="Restriction endonuclease
/protein_id="AAM24754.1"
/db_xref="GI:20516553"
                                                                                                 subunit, putative E-value 6.00E-46"
                                                           transl_table=11/
                                                                              codon_start=1
                                                                                                                                                                                                                                                                                     note-"TTE1545"
                                                                                                                                                                                                                                                                                                        /gene="HsdS"
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/gene="HsdM"
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GFCVIRANREFAEPEFLFHLCRSDFITNQLTASKMRGTSYPAVTDNDVYNTLIPLPPL
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ISVRAPVGSTNVANLACCIGRGLAALRPRDSLERFWLLYYLHYLEPELSKMGAGSTFN
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                                                                                                                                                                                                                                                                                 /translation="MTEGPYKLPPGWRWVRLGEVCLPTERRDPTKNPSTYFVYVDISA
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complement(176. .634)
/gene="HsdS"

complement(749. .1240) /note-"Pfam match to entry Methylase_S, Type I modification DNA specificity domain, score 111. restriction .3, E-value

/note="Pfam match to entry Methylase_S, Type I restriction modification DNA specificity domain, score 41.8, E-value

complement(1270. /gene="TTE1546"

complement(1270. .3207) /gene="TTE1546"

/note="Best Blastp hit = gi|10640020|emb|CAC11872.1|
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/transl_table=11

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complement (1284. /gene="HsdS" .4756) .1288)

/note="TTE1547"

/note="Best Blastp hit = | 91|12519367|90|AAG59530.1|AE005666_2 (AE005666) restriction modification enzyme M subunit (meth) [Escherichia coli 0157:H7 EDL933] complement(3214. .4737) /gene="HsdM" 05666) putative (methylase)

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transl_table=11/

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9077 294 9137 234 9197 174 9251 114 9311 60

354

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Query Match
Best Local Similarity
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/gene="Dap2"
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                                                                                                                                                                                                                                                                                   /translation-"MIQKLARTLIFIRFYPPFVFNTNFTLFFITVQQKFFAYLKNLWN
YKIRVLKRNFTYKNRGFSEKM"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           complement (9398.
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/gene="TTE1553"
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GPKGMYGYYFKYEFQLMANRGYYVVFVNPRGSNGYSEDFALRVLERTGLEDFQDILNG
VEKFFELEPNADRERVGITGISYGGFWTNWALTQSKLFKAGISENGISYWLTSYAPSD
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GGVILDEFSAEKFSTAIWHGDRVIYNVPKKVDNVPQFFGLFDIYVYEKGKREKLFEDV
SYTAVDSNGEVVLLYGKPRKEKDSEHDFHYLMDGRKVIPLTEHLVYNNGQGKLDEKGN
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(protein_id="AAM24757.1"
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restriction modification system, M', score -40.7,
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/gene="HsdM"
                                                                              PX02-66
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                                                                                               /gene="OppA8"
/note="Best Blastp hit =
                                                                                                                                                                                                                                                                                                                                                        /product="hypothetical
/protein_id="AAM24758.1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LKSLGKEAYIAIFKKGAHGHSLDGTPRHRAKRYKLFMEFFERKLKRYEEGFDVEGILK
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         'note="Best Blastp hit = gi|7518732|pir||F71174
'pothetical protein PH0594 - Pyrococcus horikoshii
ypothetical protein [Pyrococcus horikoshii], score
ypothetical protein [Pyrococcus horikoshii], score
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                                                                                                                                                                                                                                   "gene="OppA8"
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/transl_table=11
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                                                                                                                                                                                                               note="TTE1552"
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                                                                                                                                                                                                                                                                                                                                       _xref-"GI:20516557"
       27.9%;
57.5%;
                                                                           [Bacillus
       Score 522; DB 1;
Pred. No. 2.8e-92;
                                                                      p hit = gi|10956456|ref|NP_053221.1|
anthracis]
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Kawarabayasi,Y., Hino,Y., Horikawa,H., Yamazaki,S., Haikawa,Y.,
Jin-no,K., Takahashi,M., Sekine,M., Baba,S., Ankai,A., Kosugi,H.,
Hosoyama,A., Fukui,S., Nagai,Y., Nishijima,K., Nakazawa,H.,
                                                                                                                      Aeropyrum pernix (strain:K1) DNA Aeropyrum pernix
                                                                                                                                                                                Aeropyrum pernix genomic DNA,
AP000064 BA000002
AP000064.1 GI:5105945
                                                                                Desulfurococcaceae;
                                                                                                                                                                                                                                         AP000064
                                                                                                Archaea; Crenarchaeota; Thermoprotei; Desulfurococcales;
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Rawarabayasi, Y. is officially affiliated with the National Institute of Bioscience and Human-Technology, Tsukuba, Ibaraki 305-0046, Japan.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         E-mail address for comments and questions; genomeAPE@nite.go.jp
Restriction map, ORF organization, sequence alignment and more
information are available at W.W. site of Biotechnology Center,
URL: http://www.mild.nite.go.jp/.
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The other authors are at the National Institute of Technology and Evaluation, 2-49-10 Nishihara, Shibuya, Tokyo 151-0066, Japan.
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DNA Res. 6 (2), 83-101 (1999)
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                                                                                                                                                                                                                                                                                                                                                                                   /translation="MLHDTVSIEYVENPEAPGVEPVCHNLPMASPRQPLATHNHRPSP
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/note="codon recognized: CAC; anticodon:GTG"
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(protein_id="BA81260.1"
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/db_xref="Gi:5105949"
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identity:50.386 in 389aa. motif=aminotransferases class-I
pyridoxal-phosphate attachment site"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             complement(3557. .3919)
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!MFPRVAGLLRKTGLSVEQLAEKLLYSYGVLVLPGTSFPESVGREHVRLSFATATSDV
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protein_id="BAA81261.1"
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811 GAAGGAAAGGTCTACTTCCTCACTCCAGATGCGGCAGGGTAAACCTCTGGCTCTGGGAC 870
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GGCATGTACGGCTATGGATTCTACGGCGAGATGCAGCTCTTCGCATCCGAGGGCTTCACA 41669
                                                                                                                                                                                                            TACAAGCCCCGGAGGGTCGAAGTAGAGGCCGGAGGCCGAGGTTGTCGAGGGCTGGTACATA 41786
                                                                                                                                                                                                                                                                  TTCGAGCCGAGGCACTTCCGCTTCAAGAGCAAAGACCTCGAGATAGACGGCTGGTACCTC 1107
                                                                                                                                                                                                                                                                                                                    GGCGGGGATGTTGAGAGGGTGTCAAGCATTAACCGCTGGGTTGTCGAGGAGTTCAGACTG 41846
                                                                                                                                                                                                                                                                                                                                                                                                                            GAGGAGGTTGTGTACATAGCCTCCTCACCAACGGAGCCCCCGGAGGTGTACAGGTTTAAG
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/protein_id="BAA81264.1"
/db_xref="GI:5105953"
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/gene="APE2254"
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LNRILLLAGVIDKPINWGSYMLPLGTWWILIFVNGLVGVSFGMIVFYSAIRSIPWEYI
AAARVDGASNLVIIRRIIVPMIRWHLLFVTVWQMLSLLTTYTHIFLLYEWGVVDRTWG
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/gene="APE2253"
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/note="similar to OWL:AB00947119 percent identity:51.042
ln 288aa."
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                                                                                                                                                                                                                                                              White, O., Elsen, J.A., Heidelberg, J.F., Hickey, E.K., Peterson, J.D., Dodson, R.J., Haft, D.H., Gwin, M.L., Nelson, W.C., Richardson, D.L., Moffat, K.S., Qin, H., Jiang, L., Pamphile, W., Crosby, M., Shen, M., Vamathevan, J.J., Lam, P., McDonald, L., Utterback, T., Zalewski, C., Makarova, K.S., Aravind, L., Daly, M.J., Fraser, C.M. et al. Genome sequence of the radioresistant bacterium Delnococcus
                     White O., Eisen J.A., Heidelberg, J.F., Hickey, E.K., Peterson, J.D. Dodson, R.J., Haft, D.H., Gwinn, M.L., Nelson, W.C., Richardson, D.L. Moffat, K.S., Qin, H., Jiang, L., Pamphile, W., Crosby, M., Shen, M., Vamathevan, J.J., Lam, P., McDonald, L., Utterback, T., Zalewski, C., Makarova, K.S., Aravind, L., Daly, M.J., Minton, K.W., Pleischmann, R.D., Ketchum, K.A., Nelson, K.E., Salzberg, S.,
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Deinococcus radiodurans
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                                                                                                                                                       /gene="DR0167"
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/gene="DR0167"
                                                                                                                                                                                                                           FDFVGGAKYDAWAGLKGKTQEQAQQEYVALVEELKAKDGQ"
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AALMLLPLKGGEARRVTHFKNGVSGPQWSPDGRFIAFTTTADTEDKRDERGEARVLTR
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YVLQADRQGRLMVDLFDGVLNESCQRYKECGPLTEYVRRGKLALNVEYRQADLNCATM
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gene	gene	gene CDS	CDS	gene	gene CDS
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complete genome.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /product="BETA-GALACTOSIDASE (EC 3.2.1.23) (LACTASE)."
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/db_xref="GI:5458961"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        /db_xref="taxon:29292"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             /organism="Pyrococcus abyssi"
/strain="Orsay"
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GMTLVHPNEEFINKLNIFQVPELKDLADELKKGKDEGYVLYTFQGIKKIGGYKRLKTT
GMIVVATVPLSDITGPILSATDTAINKKMIVIQGEAVGFVILYDIKKINSNTL
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/note="PAB1336"

/codon_start=1 /transl_table=11

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KVYVLAFGKAACDMARAIEEILDVEDGVAVTKYGYGKELKKIRVIEAGHPIPDENSIR
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                                                                                                                                                                                                                                                                                                                                                        complement (6670.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               /translation="mpiyeArvkvgissswviskvswrdalaqlesdrivvkylrmge
VTGEDSFPFSALTDIGIRIPDELKLNPEKDHFGLKFYVPGRGELLVIFTIEENLLIYD
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                                                                                                                                                                                                                 /product="hypothetical protein"
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KVLKEHNSYEALKKVGSLLFTGPTGTNVNSMIIAIITSKQGRT"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              /product="hypothetical
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FKDSAGKLRRGTVVIDEEYVIPGFPHIKRIINLRSGIRRIFKRGEFYVEEKVDGYNVR
                                                                                                                                                                                   db_xref="GI:5458967"
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  TACGGGCTTGACGTCAGCGATGGCAAAGCATTGCTCCTCATCATGACCGCCACGAGGATA 969
                                                                       CTGTTCAGGGTAAACCTAGATGGAAAGGTTGAAAGGGTTATAAGGGGGAGATAGAAGCGTT 58883
                                                                                                                                                                                            GAAGCCAAGCTCACGGAAGGAAAGGTCTACTTCCTCACTCCAGATGCGGGCAGGGTAAAC
                                                                                                                                                                      GAACTTATCTTTAAGGATGGCTGGATATACTTCGTCGCCACGGATGGGCCTAGGGCCTAAT 5894
                                                                                                                                                                                                                                                                  Conservative
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EVNISVPDLKVVEIKNVPEIVGEDVKVVVYIELGKDESSHAFFAADYDDVLRMEDVIM
GNPPGTTTELDDMVKSSFMEMGNILISAFANALSQFLGITIEGTPPALTIDE-PAILD
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FLDAIEAMVNNIEESGSEGDIDVSDLFRRADEFLQGGKGAEKKPEEEKFKEEVEAKEE
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/product="prote1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KGTTFILKLPISMAIIQALLIRYMDETYAIPINNILETIEVDPSILKTIGGKPVIVLR
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NVRGFAGATILGDGSVVLIIDIGGLLGGGYSG"
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LTP1AEVINKFPRMYRDLARKMGKEVEFVMEGADIEVDRTILEKLGDALVHLLKRAVD
HGIEPPEERVKLGKPRVGRVELIAKKEKNHVVIIVRDDGRGIDPEKVKKKAIERGLIP
PEEAASLSDEEAINLIFLPGFSTAEKVTDVSGRGVGMDVVKEVVKSMNGSISVQTEVG
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SPDAPLKGPRSYLILQDLESIGDIVQTNPNRGDIENGNLLEGKEFEVVLRTKEDKSKI
VQLIKKHPDVENFVVTEAEAEEKQEKKEEKAEEKKPQPPKQPKKPVIETPRVKISRII
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  /product="chemotaxis histidine kinase (cheA)"
/protein_id="CAB50458.1"
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/db_xref="GI:5458971"
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/AEFLKLLAERGVSKGFTVMFDVTEGLSGLTILQFFKHSALNISAVLMGMEPGSMEE
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NSIVVFKSKFYKEDIGVESYFYLVFTPESFTKLVKKLEKQISEEVEANDEGN"
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DELKIGERNYQTAKRELKKLGIRLYAEDTGGRGGRTIYLDLSTGKVRMRKVIGGQVIE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 /product="CHEA HISTIDINE KINASE"
/protein_id="CAB50456.1"
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                                                                                                                    GGCTCTGGGACGGAAGGCCGAGCGTGTTGTTACCGGCGACCACTGGATT
                                                                                                                                                                                                                                                                                        8.1%;
                                                                                                                                                                                                                                                                                                                                                                "protein-glutamate methylesterase (cheB)"
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Pred. No. 1.7e
0; Mismatches
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265118 bp from Patent WO0065062. Thermococci; Thermococcales; DNA linear PAT 23-NOV-2000

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CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE (FR)
INSTITUT FRANÇAIS DE RECHERCHE POUR L'EXPLOITATI;
Location/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Forterre, P., Thierry, J.C., Prieur, D., Dietrich, J., Lecompte, O., Querellou, J., Weissenbach, J., Saurin, W., Heilig, R., Flament, D., Raffin, J.P., Henneke, G., Gueguen, Y. and Rolland, J.L. Genome sequence and polypeptides of pyrococcus _1(abissy), frag
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GGCGTTACCGGAGGATCATACGGAGGCTTCATGACAAATTGGATCGTTGGGCACACAAAC
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                                   Emmerson, P.T., Entian, K.D., Errington, J., Fabret, C., Ferrari, E., Emmerson, P.T., Entian, K.D., Errington, J., Fabret, C., Ferrari, E., Foulger, D., Fritz, C., Fujita, M., Fujita, Y., Fuma, S., Galizzi, A., Galigeri, O., Gilaser, P., Golightly, E.J., Galleron, N., Ghim, S.Y., Glaser, P., Golightly, E.J., Grandi, G., Gulseppi, G., Guy, B.J., Haga, K., Haiceh, J., Harwood, C.R., Henaut, A., Hilbert, H., Holsappel, S., Hosono, S., Hullo, M.F., Itaya, M., Jones, L., Joris, B., Karamata, D., Kasahara, Y., Klear, T., Koetter, P., Klaerr-Blanchard, M., Kiein, C., Kobayashi, Y., Koetter, P., Klaerr-Blanchard, M., Kiein, C., Kobayashi, Y., Koetter, P., Klaerr-Blanchard, M., Kiein, C., Kobayashi, Y., Koetter, P., Koningstein, G., Krogh, S., Kumano, M., Kurita, K., Lapidus, A., Lardinois, S., Lauber, J., Lazarevic, V., Lee, S.M., Levine, A., Liu, H., Masuda, S., Mauel, C., Medique, C., Medina, N., Mellado, R.P., Mizuno, M., Moestl, D., Nakai, S., Noback, M., Noone, D., O'Reilly, M., Ogawa, K., Ogiwara, A., Oudega, B., Park, S.H., Parro, V., Pohl, T.M., Portetelle, D., Porwollik, S., Prescott, A.M., Presecan, E., Pujic, P., Purnelle, B., Rapoport, G., Rey, M., Reynolds, S., Rieger, M., Rivolta, C., Rocha, E., Roche, B., Rose, M., Sadale, Y., Sato, T., Sekowska, A., Seror, S.J., Serror, P., Shin, B.S., Soldo, B., Sorokin, A., Tacconi, E., Takagi, T., Takahashi, H., Takemaru, K., Takacha, M., Tamakoshi, A., Tanaka, T., Terpstra, P., Tognoni, A., Voshida, K., Voshikawa, H.F., Zumstein, E., Yoshikawa, H. S., Yanamoto, H., Yamane, K., Yasumoto, K., Yata, K., Yoshikawa, H.F., Zumstein, E., Yoshikawa, H. and
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Bacillus subtilis
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TITLE

The complete genome sequence of the gram-positive bacterium Bacillus subtilis

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Submitted (18-NOV-1997) I. Moszer, A. Danchin, Institut
Regulation de l'Expression Genetique, 28 rue du Docteur
Paris Cedex 15, FRANCE. E-mail: moszer@pasteur.fr,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        adanchin@pasteur.fr Phone: +33 (0)1 45 68 84 41, Fax: +33 (0)1 45
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Ciacrigeyrgkelgtpclyniwipdgykdipsdrutprkrikesldrifseeiseg
HNLDsieskleglgsesyvygshefylayaltnklclldtghhpterysnkissml
Lytdklalhysrpyrmdsdhyvylddelreialeiyrnhalekvaigldffdasinrv
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complement(3..1277)
/gene="yulE"
                                               VVRNSFPIKVFTPKDIDRSTIIQSFQQTVLKALSK"
complement(3097. .3873)
/gene="yulB"
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KRFLNPENMIKEIQHYCRQTRQKIPRTAGELACCIYSNLAIIYAIAIKELETITEKPI
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complement(3097.
/gene="yulb"
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/gene="yulC"
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                                                                                                                                                                                                                                                                                                                                                   /trans1_table=11
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/db_xref="GI:2635616"
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                                                                                                                              <u> EQFHIIGGGARNDFLNQLTADMSGKAYYAGPIEATATGNLLMQMIAAKEVKDIKEARQ</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            'gene="yulc"
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   /gene-"yulD"
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                                                                                                                                                                                                                                                                                                                                                                                                                             codon_start-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                        note="similar to rhamnulokinase"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     function="unknown"
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SPVLWYAVIILCVSIVIGGILLLYIIRAITKPLHKLVSTSAKISGDLTEVIDIHSKN
EFGQLGESFWEMSASLKSVIGVIQTSVENVASSEELTASAAQTSKATEHITLAIEQF
SDGNEAQSEKLETSSNHLSQMNEGISKVAQASSTITKSSIQSSEAAGSGEKLVEHTVG
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similar to sorbitol-6-phosphate 2-dehydrogenase"
                                                                                                                                                                                                                                                                                                                                                   complement(8204.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           DRELISSAKGNVEELNSTLQNKLEDKVKAIDYYSETVDKDILLGKNKTLLKEKFKQYT
TLNDDVGAIYAASEDKKLYKYPDSGVPKGFDPTGRDWYKQAVAEKGQAVFSEPYTDEA
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KNSVYAGKNASAYSSVKALETHLARCIAAEGGEFGIRVNSVLPDAVLOGSAIWGSSWR
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GQFVSLHENESYHVEYWPLELYKLTLAPPEAEFSRKVALITGGAGGIGSAACRRFAAE
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INDRINQHEVEGGKRYQPLPEDKRKQILAGIMPVIRGAVSEEKKMILSYDDHDDVLEF
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SHCMIDSKHPRPSIETLLHAFLPYKHVDHTHPDAIISICCADNGKQIAEDIYGNRFVW
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ETYHVNKTFLSCKGFDVHNGMSDSNEWQALLKKRMIERSDQTILMADSSKWGNREFSH
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                                                                                                                        /function="chemotaxis deficiency toward glucose
alpha-methyl-glucoside"
                                                                                                                                                                                                                       complement (8239.
                                                                                                                                                                                                                                                                           complement (8204.
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/translation="mLvAERQQKIVEIVNMRSSIRVSELSDIFSVTEETIRRDLEKLE
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/product="methyl-accepting chemotaxis protein"
/protein_id="CAB15113.1"
                                                                                                                                                                                                                                                       /gene="mcpA"
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/protein_id="CAB15112.1"
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/db_xref="GI:2635618"
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/db_xref="G1:2635620"
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QSGTELKGDWLDKMLSADKGDPQYTMOGDKKKVAFDTNKLJGWKIGGMYLDEHEAA
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SNGNEKQNENIETAAEHIYQNNDGLTNNAQASEVITDSSVQSTEIASEGGKLVHQTVG
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QNNVIDKSVKEAEQVVRGLEFKSKDLTNILKVINGIADQTNLALNAAIEAARAGEYG
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from Patent W09903984
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TITLE
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Matches 356; Conserve
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Proteases from gram-positive organisms
Patent: WO 9903984-A 1 28-JAN-1999;
GENENCOR INTERNATIONAL B V (NL); ESTEL:
LOCATION/Qualifiers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Bacillus subtilis.
Bacillus subtilis
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TCATGGTTTGATCAACATCTC
                                                                                                             CACGGCCACAGCGTCCGCGGAAGCCCGAAGGCACAGGCCGAAGCGCTACAGGCTCTTCATA
                                     GAGTTCTTCGAGCGCAAGCTC 1812
                                                                                                                                                                           TACAACGTGCTCAAGGACATGGGCAAGGAAGCCTACATAGCGATATTCAAGCGCGGCGCCC
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                                                                        CACAATTTATCACGCACCGGACACCCAAGACAGCGGGTCAAGCGCCTGAATTATATCAGC 1950
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/db_xref="taxon:1423"
431 c 524 g 458 t
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Pred. No. 2.5e-19;
0; Mismatches 322;
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BASE COUNT
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AUTHORS
TITLE
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KEYWORDS
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Best Local Similarity
Matches 344; Conserv
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Methods for monitoring multiple gene expression
Patent: WO 0229113-A 224 11-APR-2002;
Novozymes Biotech, Inc. (US); Novozymes A/S (DK)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Bacillus licheniformis.
Bacillus licheniformis
Bacteria; Firmicutes; Bacillales; Bacillaceae; Bacillus.
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                                                                                TCAGATTTCCGAACGCGTCACACGATTTATCAAGAAGCGGGCATCCGAAGCAGCGGATCA 1918
                                                                                                                      CGATATTCAAGCGCGCGCCCACGGCCACAGCGTCCGCGGAAGCCCGAGGCACAGGCCGA 1771
                                                                                                                                                             TTGAACAGGCGGAACAGCTGTTCACGGCGCTGAAAAAAATGGGGAAAGAAGTAAAACTCG
                                                                                                                                                                                        TCGACCAGAGCCTTATGTTCTACAACGTGCTCAAGGACATGGGCAAGGAAGCCTACATAG 1711
                                                                                                                                                                                                                                           CGGACAAGGTGGAGACCCCTCTTCTCATTCTGCATGGCGAACGGGACGACAGGTGCCCGA 1798
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1. .1958
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/db_xref="taxon:1402"
462 c 518 g 421 t
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51.8%;
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pred. No. 1.5e-17;
0; Mismatches 317;
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Search completed: July 15, 2003, 15:23:55 Job time : 4935 secs